RUDRAPRASAD CONSULTANTS

NAME OF WORK: Improvements of Roads, Development of Parks and Construction of Buildings in Ward No 01,02,03 & 04 of Yelahanka Division Under 2021-22 District Minister Grants. (Package-15)

DETAILED PROJECT REPORT

SUBMITTED TO B.B.M.P. BANGALORE

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BRUHAT BENGALURU MAHANAGARA PALIKE

DETAIL PROJECT REPORT

NAME OF WORK: Improvements of Roads , Development of Parks and Construction of Buildings in Ward No01,02,03 & 04 of Yelahanka Division Under 2021-22 District Minister Grants. (Package-15)

Rudraprasad consultants
No.3, 7th Main,
Malleswaram Bengaluru-560003

RUDRAPRASAD CONSULTANTS BANGALORE

Executive Engineer
Yelahanka Division
Bengaluru

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RUDRAPRASAD CONSULTANTS BANGALORE

Rudraprasad Consultants
Structural Engineers, Architects &
Project management consultants

Executive engineer
Project West
BBMP

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PROJECT: IMPROVEMENTS OF ROADS, DEVELOPMENT OF PARKS AND CONSTRUCTION OF BUILDINGS IN WARD NO 01, 02, 03 & 04 OF YELAHANKA DIVISION UNDER 2021-22 DISTRICT MINISTER GRANTS.(PACKAGE NO -15

INTRODUCTION:

BENGALURU

Bengaluru officially known as Bangalore , is the capital of the Indian state of Karnataka. It has a population of about 8.42 million and a metropolitan population of about 8.52 million, making it the third most populous city and fifth most populous urban agglomeration in India. Located in southern India on the Deccan Plateau, at a height of over 900 m (3,000 ft) above sea level, Bengaluru is known for its pleasant climate throughout the year. Its elevation is the highest among the major large cities of India.

A succession of South Indian dynasties, the Western Gangas, the Cholas and the Hoysalas, ruled the present region of Bengaluru until in 1537 CE, Kempegowda a feudal ruler under the Vijayanagara Empire – established a mud fort considered to be the foundation of modern Bengaluru. The existing Kannada name, Bengaluru, was declared the official name of the city in 2006.

Now the city is one of the fastest growing cities in Asia. Bengaluru is known as the "Silicon Valley of India" (or "IT capital of India") because of its role as the nation's leading information technology (IT) export. Indian technological organizations ISRO, Infosys and Wipro are headquartered in the city. A

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demographically diverse city, Bengaluru is the second fastest-growing major metropolis in India. It is home to many educational and research institutions in India, such as Indian Institute of Science (IISc), Indian Institute of Management (Bengaluru) (IIMB), National Institute of Fashion Technology, Bengaluru, National Institute of Design, Bengaluru (NID R&D Campus), National Law School of India University (NLSIU) and National Institute of Mental Health and Neurosciences (NIMHANS). Numerous state owned aerospace and defence organisations, such as Bharat Electronics, Hindustan Aeronautics and National Aerospace Laboratories are located in the city. The city also houses the Kannada film industry. As a growing metropolitan city in a developing country, Bengaluru confronts substantial pollution and other logistical and socio-economic problems with a gross domestic product (GDP) of $83 billion. Bengaluru is ranked fourth in India by overall GDP contribution, after only Mumbai, Delhi and Kolkata

Along with the population the city has also seen many improvements in infrastructure road, highways. Flyovers are taking great part in the reduction of traffic.

Real estate is a critical aspect of much of the growth. The IT capital Bengaluru has surpassed both the commercial and political capitals of India as the top investment destination in the property market.

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BRUHAT BENGALURU MAHANAGARA PALIKE:

The **Bruhat Bengaluru Mahanagara Palike (BBMP)** is the administrative body responsible for the civic and infrastructural assets of the Greater Bengaluru metropolitan area.

The BBMP represents the third level of government, (the Central government and State Government being the first two levels). Bruhat Bengaluru Mahanagara Palike is run by a city council. The city council comprises elected representatives, called "corporators", one from each of the wards (localities) of the city. Elections to the council are held once every five years, with results being decided by popular vote. Members contesting elections to council represent one of more of the state's political parties. First elections to the newly created body were held on 28 March 2010, after the delays due to delimitation of wards and finalising voter lists.

The Bruhat Bengaluru Mahanagara Palike is the fourth largest Municipal Corporation in India, after the city corporations that administer Mumbai, Delhi and Chennai. The BBMP is responsible for infrastructural assets of the Greater Bengaluru Metropolitan area, spread across 741 km^2, with a population of 6.8 million.

Its roles and responsibilities include the "orderly development of the city" zoning and building regulations, health, hygiene, licensing, trade and education, as well as quality of life issues such as lung spaces, water bodies, parks and greenery

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OBJECTIVE OF THE PROJECT:

ANGANAVADI BUILDING

Children under the age of 3 years are weighed once a month at the Anganvadi to keep a check on their nutrition and overall health. Children older than this are weighed once in three months. Nutritional and health education is also provided through counseling, demonstrations and home visits to women between the age of 15 and 45 years.

To encourage such constructions, Bruhat Bengaluru Mahanagara Palike is desirous of "SPECIAL REPAIRS TO ANGANAVADI BUILDING AT KONDAPPA LAYOUT AND PROVIDING GRILL WORK TO ANGANAVADI BUILDING AT KOTEBHEEDHI IN CHOWDESHWARI WARD NO -02".

Criteria for site selection

The following criteria were used to assist in selecting the Multipurpose Building Site:

- People's need
- Accessibility
- Public gathering
- Integration
- Recognition/visibility
- Potential for strong partners
- Potential for service collaboration/coordination
- Availability and opportunity and
- Financial viability

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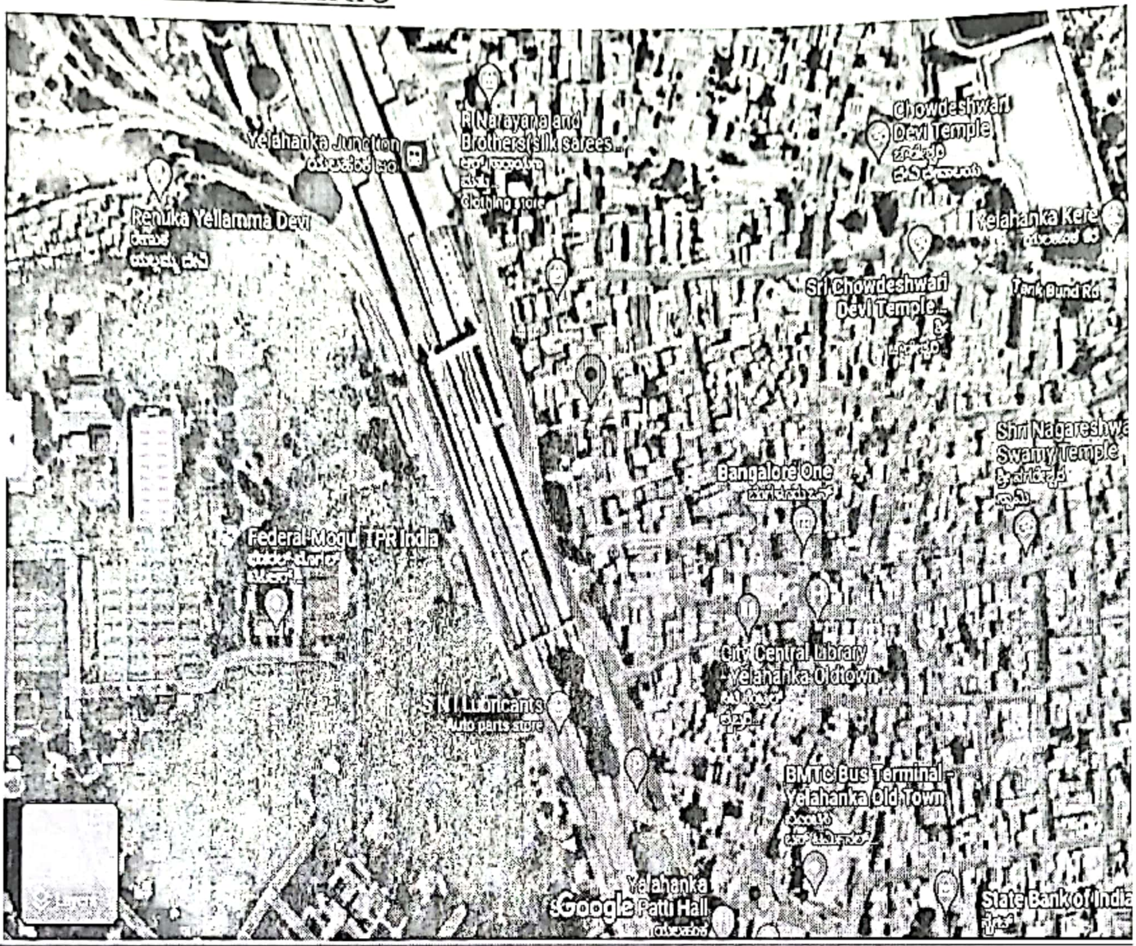
CURRENT SCENARIO



LOCATION: Bestara Colony, Kamakshiamma Layout, Yelahanka, Bengaluru, Karnataka 560064

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FEATURES OF THE PROJECT

Location	: Kotebheedhi in Chowdeshwari Ward No -02
Land use as per master plan	: Special Repairs To Anganavadi Building
Ownership	: Bruhat Bengaluru Mahanagara Palike
Possession	: Bruhat Bengaluru Mahanagara Palike
Essential service	: Compound Wall, Gate and Railings
Cost of the project	: Rs 25 Lakhs only.
Commencement of the project	: After the approval from the Competent body
Completion date as per agreement	: 12 months from the issue of work order

Features of the Project Includes:

- Compound wall, Gate and Railings are Been Proposed in Ground Floor.

FEASIBILITY STUDY

This project, "SPECIAL REPAIRS TO ANGANAVADI BUILDING AT KONDAPPA LAYOUT AND PROVIDING GRILL WORK TO ANGANAVADI BUILDING AT KOTEBHEEDHI IN CHOWDESHWARI WARD NO -02" has viewed feasibility as involving the analysis of both social and financial issues.

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The social component of the feasibility analysis involves understanding the following:

- Needs of local area people (both current and projected)
- The needs of service providers (both current and projected)
- Projected population growth and
- Public facility provision principles, standards and benchmarks

The financial component of the feasibility analysis was based on the fundamental assumption that BBMP would retain ownership of its real property and to provide an ability to respond flexibly to the changing needs and priorities. It has involved understanding:

- Any further development potential on the proposed site and potential uses
- The cost of providing the whole development

The feasibility Report of the project is concluded with the key features of the project planning proposals along with the area statements.

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PROPOSAL/PLANNING

Special repairs to Anganavadi building at Kondappa layout and providing grill work to Anganavadi building at Kotebheedhi in Chowdeshwari ward no -02.

Following Developments are proposed:

1. COMPOUND WALL

   Compound wall is been proposed for length of 51.30m for height of 0.6m.

2. GATE

   Two gates are been proposed for length of 3.15m for height of 1.8m, length of 2.65m for height of 1.8m.

FINISHES:

- Plastering is done for the compound wall.
- Fixing of glass for windows.
- Grill work over the compound wall.
- Stainless steel for corriodor.

FINANCIAL IMPLICATION:

This is a government project and there will not be any collection of revenue for using this building on day to day basis .This will be maintained by BBMP.

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BUDGET PROVISION:

In the proposed budget of Bengaluru Mahanagara Palike i.e., 2020-2021 Rs.25,00,000(Rupees Twenty five Lakhs Only) has been provided for the "SPECIAL REPAIRS TO ANGANAVADI BUILDING AT KONDAPPA LAYOUT AND PROVIDING GRILL WORK TO ANGANAVADI BUILDING AT KOTEBHEEDHI IN CHOWDESHWARI WARD NO -02"

CONCLUDING REMARKS:

This project, "SPECIAL REPAIRS TO ANGANAVADI BUILDING AT KONDAPPA LAYOUT AND PROVIDING GRILL WORK TO ANGANAVADI BUILDING AT KOTEBHEEDHI IN CHOWDESHWARI WARD NO -02" will be useful as per the requirements. This building provides better building service, employment opportunities and benefits for the local people.

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OBJECTIVE OF THE PROJECT:

SCHOOL

A school is an educational institution designed to provide learning spaces and learning environments for the teaching of students (or "pupils") under the direction of teachers. Most countries have systems of formal education, which is commonly compulsory.[2] In these systems, students progress through a series of schools. The names for these schools vary by country (discussed in the Regional section below) but generally include primary school for young children and secondary school for teenagers who have completed primary education.

Construction of these kinds of modern buildings with good infrastructure and facilities would contribute towards the beautification of the town.

To encourage such constructions, Bruhat Bengaluru Mahanagara Palike is desirous of "CONSTRUCTION OF COMPOUND WALL AT PUTTENAHALLI AND NAGENAHALLI GOVT SCHOOL IN CHOUDESHWARI WARD NO 02".

Criteria for site selection

The following criteria were used to assist in selecting the Multipurpose Building Site:

- People's need
- Accessibility
- Public gathering
- Integration
- Recognition/visibility
- Potential for strong partners
- Potential for service collaboration/coordination

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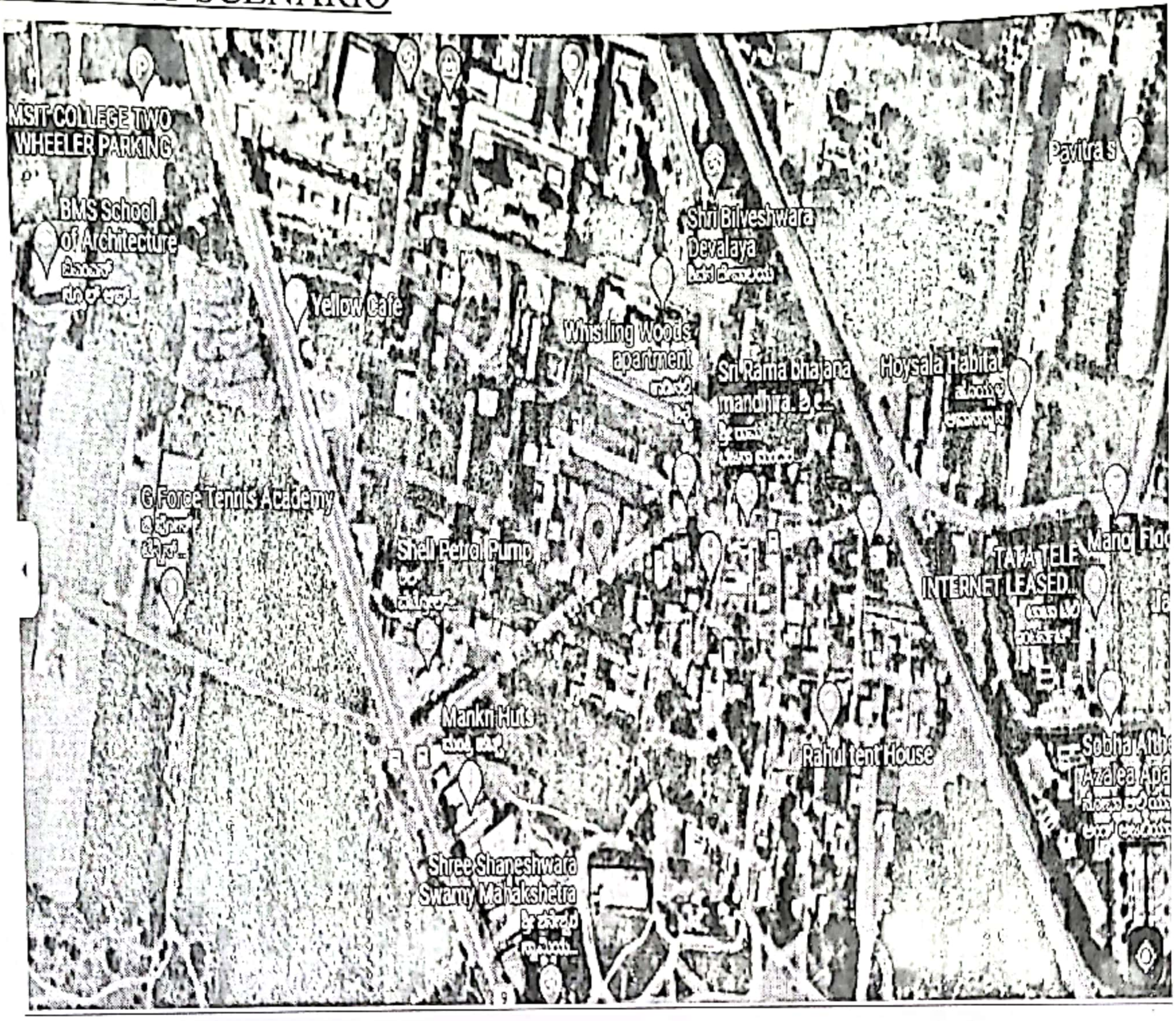
- Availability and opportunity and
- Financial viability

CURRENT SCENARIO



LOCATION: Nagenahalli, Bengaluru, Karnataka 560064

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FEATURES OF THE PROJECT

Location	: Chowdeshwari Ward No -02
Land use as per master plan	: Construction Of Compound Wall
Ownership	: Bruhat Bengaluru Mahanagara Palike
Possession	: Bruhat Bengaluru Mahanagara Palike
Essential service	: Compound Wall, Gate and Railings
Cost of the project	: Rs 80 Lakhs only.
Commencement of the project	: After the approval from the Competent body
Completion date as per agreement	: 12 months from the issue of work order

Features of the Project Includes:

- Compound wall, Parapet wall, Gate , Grill work are been Proposed in Ground Floor.

FEASIBILITY STUDY

This project, "CONSTRUCTION OF COMPOUND WALL AT PUTTENAHALLI AND NAGENAHALLI GOVT SCHOOL IN CHOWDESHWARI WARD NO 02" has viewed feasibility as involving the analysis of both social and financial issues.

The social component of the feasibility analysis involves understanding the following:

- Needs of local area people (both current and projected)

- The needs of service providers (both current and projected)
- Projected population growth and
- Public facility provision principles, standards and benchmarks

The financial component of the feasibility analysis was based on the fundamental assumption that BBMP would retain ownership of its real property and to provide an ability to respond flexibly to the changing needs and priorities. It has involved understanding:

- Any further development potential on the proposed site and potential uses
- The cost of providing the whole development

The feasibility Report of the project is concluded with the key features of the project planning proposals along with the area statements.

PROPOSAL/PLANNING

Construction of compound wall at Puttenahalli and Nagenahalli Govt school in Chowdeshwari ward no 02.

Following Developments are proposed:

1. COMPOUND WALL

   Compound wall is been proposed for area of 339.97sqm.

2. GATE

   Gates is been proposed for length of 5m for height of 2.4m.

3. PARAPET WALL

   Parapet wall for first floor and terrace floor for area of 130sqm.

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FINISHES:

- Plastering is done for the compound wall.
- Fixing of Doors and windows.
- Painting for classroom
- Tiles work for classroom , corroidor and toilets.
- Grill work over the compound wall.
- Stainless steel for corriodor.

FINANCIAL IMPLICATION:

This is a government project and there will not be any collection of revenue for using this building on day to day basis .This will be maintained by BBMP.

BUDGET PROVISION:

In the proposed budget of Bengaluru Mahanagara Palike i.e., 2020-2021 Rs.80,00,000(Rupees Eighty Lakhs Only) has been provided for the "CONSTRUCTION OF COMPOUND WALL AT PUTTENAHALLI AND NAGENAHALLI GOVT SCHOOL IN CHOUDESHWARI WARD NO 02"

CONCLUDING REMARKS:

This project, "CONSTRUCTION OF COMPOUND WALL AT PUTTENAHALLI AND NAGENAHALLI GOVT SCHOOL IN CHOUDESHWARI WARD NO 02" will be useful as per the requirements. This building provides better building service, employment opportunities and benefits for the local people.

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OBJECTIVE OF THE PROJECT:

DYANA MANDHIRA

It is a spiritual centre established to promote spirituality and yoga among community. Mandira frequently organizes free yoga camps for the public. It also hosts bhajanas and other programs to enhance spiritual sense among the public.

To encourage such constructions, Bruhat Bengaluru Mahanagara Palike is desirous of "CONSTRUCTION OF DYANA MANDHIRA AT GKVK LAYOUT IN YELAHANKA UPANAGARA WARD NO -04".

Criteria for site selection

The following criteria were used to assist in selecting the Multipurpose Building Site:

- People's need
- Accessibility
- Public gathering
- Integration
- Recognition/visibility
- Potential for strong partners
- Potential for service collaboration/coordination
- Availability and opportunity and
- Financial viability

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CURRENT SCENARIO

LOCATION:

LOCATION: The proposed project is located at GKVK Layout, Yelahanka Upangara in Ward no.04.

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FEATURES OF THE PROJECT

Location Ward No-04.	: GKVK Layout in Yelahanka Upanagara
Land use as per master plan	: Construction of Dyana Mandhira.
Ownership	: Bruhat Bengaluru Mahanagara Palike
Possession	: Bruhat Bengaluru Mahanagara Palike
Essential service	: Dyana Hall
Cost of the project	: Rs 1 crore only.
Commencement of the project	: After the approval from the Competent body
Completion date as per agreement	: 12 months from the issue of work order

Features of the Project Includes:

- Hall , Stage ,Doors and Windows, Granite flooring.

FEASIBILITY STUDY

This project, "CONSTRUCTION OF DYANA MANDHIRA AT GKVK LAYOUT IN YELAHANKA UPANAGARA WARD NO -04" has viewed feasibility as involving the analysis of both social and financial issues.

The social component of the feasibility analysis involves understanding the following:

- Needs of local area people (both current and projected)
- The needs of service providers (both current and projected)
- Projected population growth and
- Public facility provision principles, standards and benchmarks

The financial component of the feasibility analysis was based on the fundamental assumption that BBMP would retain ownership of its real property and to provide an ability to respond flexibly to the changing needs and priorities. It has involved understanding:

- Any further development potential on the proposed site and potential uses
- The cost of providing the whole development

The feasibility Report of the project is concluded with the key features of the project planning proposals along with the area statements.

PROPOSAL/PLANNING

Construction of Dyana Mandhira at GKVK Layout in Yelahanka Upanagara Ward No -04.

Following Developments are proposed:

1. DYANA HALL

   Hall is been proposed for an area of 212.16sqm.

2. STAGE

   Stage is been proposed for an area of 68 sqm.

FINISHES:

- Plastering and Painting is done .
- Fixing of Doors and windows.
- Granite and tiles work.

FINANCIAL IMPLICATION:

This is a government project and there will not be any collection of revenue for using this building on day to day basis .This will be maintained by BBMP.

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BUDGET PROVISION:

In the proposed budget of Bengaluru Mahanagara Palike i.e., 2020-2021 Rs.1,00,00,000(Rupees One Crore Only) has been provided for the "CONSTRUCTION OF DYANA MANDHIRA AT GKVK LAYOUT IN YELAHANKA UPANAGARA WARD NO -04"

TOTAL BUILT UP AREA:

Total site area allotted for the project "CONSTRUCTION OF DYANA MANDHIRA AT GKVK LAYOUT IN YELAHANKA UPANAGARA WARD NO -04" Total Built up area is 212.16 Sqm.

CONCLUDING REMARKS:

This project, "CONSTRUCTION OF DYANA MANDHIRA AT GKVK LAYOUT IN YELAHANKA UPANAGARA WARD NO -04" will be useful as per the requirements. This building provides better building service, employment opportunities and benefits for the local people.

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OBJECTIVE OF THE PROJECT:

MASTI VENKATESHWARA IYANGAR PARK

A **park** is an area of natural, semi-natural or planted space set aside for human enjoyment and recreation or for the protection of wildlife or natural habitats. Urban parks are green spaces set aside for recreation inside towns and cities. Parks may consist of grassy areas, rocks, soil and trees, but may also contain buildings and other artifacts such as monuments, fountains or playground structures. Many parks have fields for playing sports such as baseball and football, and paved areas for games such as basketball. Many parks have trails for walking, biking and other activities. Some parks are built adjacent to bodies of water or watercourses and may comprise a beach or boat dock area. Urban parks often have benches for sitting and may contain picnic tables and barbecue grills.

To encourage such constructions, Bruhat Bengaluru Mahanagara Palike is desirous of "PROVIDING FENCING AND OTHER DEVOLOPMENTAL WORKS TO MASTI VENKATESHWARA IYANGAR PARK IN ATTUR WARD NO - 03".

Criteria for site selection

The following criteria were used to assist in selecting the Multipurpose Building Site:

- People's need
- Accessibility
- Public gathering
- Integration
- Recognition/visibility
- Potential for strong partners
- Potential for service collaboration/coordination
- Availability and opportunity and

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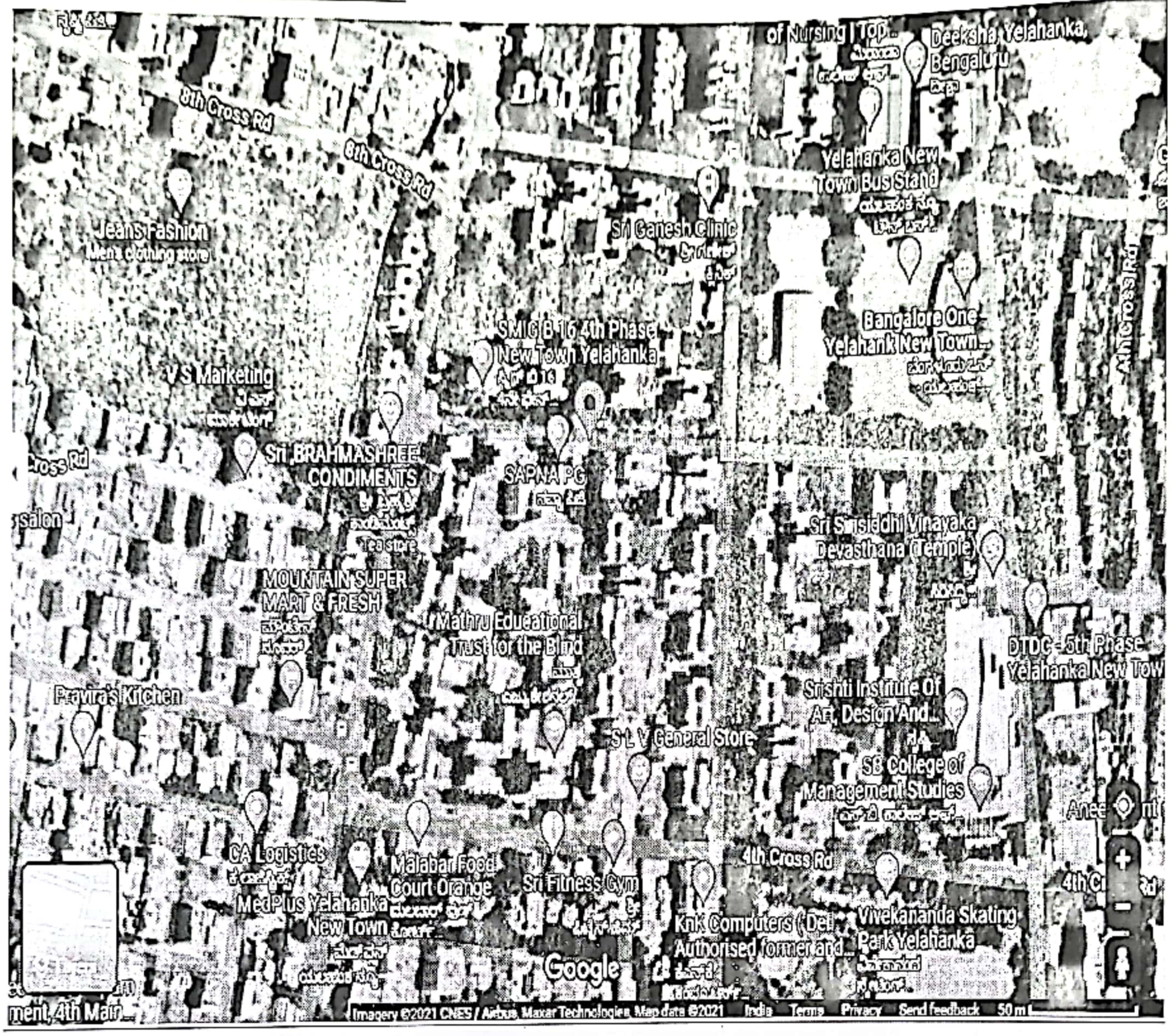
- Financial viability

CURRENT SCENARIO



LOCATION: 17/2, 6th Cross Street, Yelahanka 5th Phase, Yelahanka 4th Phase, Yelahanka New Town, Bengaluru, Karnataka 560064.

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FEATURES OF THE PROJECT

Location : Yelahanka 5th Phase, Yelahanka 4th Phase, Yelahanka New Town in Attur Ward No -02.

Land use as per master plan : Developments of Park

Ownership : Bruhat Bengaluru Mahanagara Palike

Possession : Bruhat Bengaluru Mahanagara Palike

Essential service : Grill work ,Toilets, Waterman room.

Cost of the project : Rs 1 crore only.

Commencement of the project : After the approval from the Competent body

Completion date as per agreement : 12 months from the issue of work order

Features of the Project Includes:

- Grill work, Pathway , Toilets and Waterman room.

FEASIBILITY STUDY

This project, "PROVIDING FENCING AND OTHER DEVOLOPMENTAL WORKS TO MASTI VENKATESHWARA IYANGAR PARK IN ATTUR WARD NO - 03" has viewed feasibility as involving the analysis of both social and financial issues.

The social component of the feasibility analysis involves understanding the following:

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- Needs of local area people (both current and projected)
- The needs of service providers (both current and projected)
- Projected population growth and
- Public facility provision principles, standards and benchmarks

The financial component of the feasibility analysis was based on the fundamental assumption that BBMP would retain ownership of its real property and to provide an ability to respond flexibly to the changing needs and priorities. It has involved understanding:

- Any further development potential on the proposed site and potential uses
- The cost of providing the whole development

The feasibility Report of the project is concluded with the key features of the project planning proposals along with the area statements.

PROPOSAL/PLANNING

Providing Fencing and Other Devolopmental Works To Masti Venkateshwara Iyangar Park in Attur Ward No - 03.

Following Developments are proposed:

1. VIDHANA SOUDHA GRILL

   Compound wall is been proposed for length of 51.30m for height of 0.6m.

2. TOILETS

   Toilets are been proposed for an area of 26.82sqm.

3. WATERMAN ROOM

   Room is been proposed for an area of 11.48sqm.

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FINISHES:

- Plastering and paintings are done.
- Fixing of doors and windows.
- Tiles work are done.
- Grill works.

FINANCIAL IMPLICATION:

This is a government project and there will not be any collection of revenue for using this building on day to day basis .This will be maintained by BBMP.

BUDGET PROVISION:

In the proposed budget of Bengaluru Mahanagara Palike i.e., 2020-2021 Rs.1,00,00,000(Rupees One Crore Only) has been provided for the "PROVIDING FENCING AND OTHER DEVOLOPMENTAL WORKS TO MASTI VENKATESHWARA IYANGAR PARK IN ATTUR WARD NO - 03"

CONCLUDING REMARKS:

This project, "PROVIDING FENCING AND OTHER DEVOLOPMENTAL WORKS TO MASTI VENKATESHWARA IYANGAR PARK IN ATTUR WARD NO - 03" will be useful as per the requirements. This building provides better building service, employment opportunities and benefits for the local people.

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INTRODUCTION

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CHAPTER – 1

INTRODUCTION

Detailed Project Report

1.1 General

India's pride, Bengaluru is nearly 500 years old and has grown from a small time settlement when KempeGowda, the architect of Bengaluru, built a mud fort in 1537 and his son marked the city boundaries by erecting four watch towers. Bangalore is the capital and the largest city of Karnataka. It is also called "Garden City" for its beautiful gardens, flowers and trees which flourish in each and every street. Bangalore is India's third largest city, fifth most populous city and fifth-most populous urban agglomeration. The majority of the city of Bangalore lies in the Bangalore Urban district of Karnataka and the surrounding rural areas are a part of the Bangalore Rural district. In recent days Bangalore has transformed itself from a "pensioners' paradise" to a modern thriving "cosmopolitan metropolis". Today Bengaluru has grown well beyond those four towers into a sprawling metropolis of more than 6 million people and is referred to as the "Silicon Valley" of India.

As a large and growing metropolis, Bangalore is home to many well-recognized colleges and research institutions in India. Numerous public sector heavy industries, software companies, aerospace, telecommunications, and defence organizations are located in the city. Bangalore is also well known as a hub for India's Information Technology sector. It is among the top 10 preferred entrepreneurial locations in the world. Bangalore is a major economic and cultural hub and the second fastest growing major metropolis in India. Today 35 percent of India's software export is done at Bangalore. Rapid population growth in Bangalore was brought about by the IT and other associated industries, leading to an increase in the population to about 1.5 million, with an annual growth rate of 10-14%.every year.

Bangalore today is obviously one of the most sought after cities in the country with the rapid growth in the IT industry and other associated industries the rise in the number of job opportunities in the city. With the rising population in the city there is also a corresponding increase in the number of vehicles in the city. Bangalore's vehicular traffic has increased manifold, with 1.6 million registered vehicles in the city — the second highest for an Indian city, after New Delhi. Bangalore in particular is that there is very little scope for expansion of

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roads and the need to use existing roads for smoothmovement of vehicles is even more pronounced. It thus becomes mandatory for the administration to ensure better parking facilities. With the increase in population and the expansion of the city, the problem of connectivity of the populace has arisen. Quite obviously personalized modes of transport have grown at a tremendous rate and two wheelers along with the cars. The maintenance and construction of roads to address the growing traffic in the city has been a challenge to the BDA and the BBMP. Development of the city road infrastructure has revolved around imposing one-way traffic in certain areas, improving traffic flow in junctions, constructing ring roads, bridges, flyovers and other grade separators.

Bangalore's road network exceeds 3,000 km (1,800 mi) and consists of ring roads, arterial roads, sub-arterial roads and residential streets. The city road network is mainly radial, converging in the centre. Many of Bangalore's erstwhile colonial and town streets were developed into commercial and entertainment areas after independence. The B.V.K Iyengar Road became the retail hub of Bangalore, while MG Road, Commercial Street and Brigade Road became important shopping, recreation and corporate areas. But for MG Road, other roads in and around the erstwhile Parade Ground remain narrow, winding roads. The unplanned nature of growth in the city resulted in massive traffic gridlocks that the municipality attempted to ease by constructing a flyover system and by imposing one-way traffic systems. Some of the flyovers and one-ways mitigated the traffic situation moderately but were unable to adequately address the disproportionate growth of city traffic. Some of the flyovers and one-ways mitigated the traffic situation moderately; however the volume of traffic continues to grow at an annual rate of between 7- 10%. The Outer Ring Road was initially constructed to ease truck congestion in the city; however the growth of suburbs reduced the positive impact of the ring road. BDA is laying additional lanes on many of the major roads around Bangalore. The Peripheral Ring Road is designed to be concentric to the Outer Ring Road and covers 108.9 km. The Hosur Road, which connects Bangalore to the Electronics City, is heavily congested and is part of the National Highway (NH7), therefore witnesses' heavy truck traffic as well.

Export Promotional Industrial Park (EPIP) in Bangalore is the place which entrepreneurs love to be identified with. EPIP is in the just next door of M/s ITPL, an internationally acclaimed technology park promoted by KIADB with TATAs and Singapore consortium of industries.

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This park comes with state-of-the-art infrastructure facilities. Following are the few of many features of this prestigious location

- Location in unpolluted, lush green atmosphere, just 17 Kms. from the heart of the city and 9 Kms. from Bangalore Airport.
- Total extent of developed land is 547 acres with well-laid asphalted roads & drainage systems.
- Assured water supply & dedicated power lines with Sodium Vapor street lighting.
- KTPO Exhibition Complex coming up in the area. Hospital with ultra modern facilities and well-equipped inland container depots.
- Well connected with public transport with host of secondary infrastructure facilities like telephones, Posts & Telegraph, Banks, ATMs, Convention center. Cafeterias, Travel operators.

EPIPs are the destination for industrial units who have plans to export at least 33% of their output in value offshore. These parks come with well-planned infrastructure, which is hallmark of KIADB's service. These parks are established with the sanction of Union Govt, of India to give impetus to growth of exports in the state. Government of Karnataka offers host of incentives and concessions to export oriented units.

The Bruhat Bengaluru Mahanagara Palike (BBMP, Greater Bangalore Municipal Corporation vide Government of Karnataka Notification no. UDD 92 MNY dt: 2.11.2006) is in charge of the civic administration of the city. It was formed in 2007 by merging 100 wards of the erstwhile Bangalore Mahanagara Palike, with seven neighbouring City Municipal Councils (Rajarajeshwari Nagara, Dasarahalli, Bommanahalli, Krishnarajapuram, Mahadevapura, Byatarayanapura and Yelahanka), one Town Municipal Council (Kengeri) and 111 villages around Bangalore. The BBMP Is run by a city council composed of 250 members, including 198 corporators representing each of the wards of the city. The BBMP works with the Bangalore Development Authority (BDA) and the Agenda for Bengaluru Infrastructure and Development Task Force (ABIDe) to design and implement civic projects.

The BBMP has taken up an ambitious plan to upgrade Arterial & Sub Arterial Road network in these newly added areas of BBMP and Development, maintenance and management of high quality network in EPIP zone roads at Mahadevapura Zone, where the traffic intensity has increased significantly and to augment the capacity for safe, efficient and free flow of

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traffic. Roads in and around EPIP zones are being upgraded to arterial road standards which will result in enormous increase in the traffic. Tech city, a preferred choice of many global corporations to position their businesses. It has indeed been a challenge to the government agencies including the urban local bodies to meet up with these unprecedented demands and challenges of the global companies and its citizens demanding international class 'citizen services'.

The project consists of improvements to roads and drains, in ward 01,02 & 04 of Yelahanka Division, which includes 64 roads. The existing roads need to be improved, since they are not in good condition and to avoid inconvenience to people living in these wards. The total length of all Drains in ward 01, 02 & 04 is 1745.70 m (1.745 Km), the total length of all Asphalt Roads in Ward 01 & 04 is 2390.10m (2.390 Km) & the total length of all CC Road in Ward 01,02 & 04 is 1899.70 m (1.899Km). The ward maps in which the respective roads are highlighted are enclosed with this report.

1.2 Topography

Bangalore is situated in the southeast of Karnataka, at an average elevation of 920m above mean sea level. It is positioned at 12.97°N, 77.56°E and covers an area of 2, 190 sq.km. Bangalore Urban District borders with Kolar District in the northeast, Tumkur District in the northwest, Mandya District in the southwest, Chamarajanagar District in the south and the neighboring state of Tamil Nadu in the southeast. The Bangalore Urban District is divided into three taluks; Bangalore North, Bangalore South, and Anekal. The Bangalore North taluk is a relatively level plateau, while the Bangalore South taluk has an uneven landscape with intermingling hills and valleys.

1.3 Project objective

- The main objective of the study is to establish the technical & economical viability of the project roads by rehabilitation, strengthening, asphalting, concrete including culverts and improvements of side drains of the existing roads.
- The detailed project study includes submission of the detailed project report for the project as per standards.

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1.4 Outline of the project

The consultant is required to conduct various engineering Surveys, Investigate, Carry out Detailed Design and Viability of the project. **Prepare Detailed Project Report,** based on Detailed Design and Bill of Quantities.

1.5 Contents of Detailed Project Report

This Detailed Project Report is submitted in 8 chapters dealing with different aspect of the study of the project road.

Chapter description

1	Introduction
2	Socio-Economic Profile
3	Description of project
4	Methodology
5	Design Standards
6	Pavement Overlay design
7	Conclusion
8	Cost estimate

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DESCRIPTION OF PROJECT ROADS

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CHAPTER - 2

DESCRIPTION OF PROJECT ROADS

2.1 General

The project consists of bad roads in Ward 01,02 & 04 of Yelahanka Division, which includes 64 roads in. The existing roads need to be improved since there are formation of Cracks, Rutting and Potholes which are a hindrance to the free movement of traffic, in turn causing inconvenience to the people of the respective wards. The total length of all Drains in ward 01, 02 & 04 is 1745.70 m (1.745 Km), The total length of all Asphalt Roads in 01 & 04 is 2390.10m (2.390 Km) & the total length of all CC Road in 01,02 & 04 is 1899.70 m (1.899Km), Majority of roads pass through residential and commercial area. Below are the lists of the bad roads in their respective wards.

- **List of Roads**
- **List of Roads in Ward No. 01 (APTS Premises Layout)**
- APTS Premises Layout - Kapila Hostel Road
- APTS Premises Layout - Ground Right Side Road
- APTS Premises Layout - Hospital Road
- APTS Premises Layout - Cross Road-2
- APTS Premises Layout - Office Road
- APTS Premises Layout - APTS Parking Lot Road
- APTS Premises Layout - Hospital Back Side Road
- APTS Premises Layout - Connecting Road
- APTS Premises Layout - Cross Road-1
- APTS Premises Layout - Cross Road 3
- **List of Roads in Ward No. 01 (Kurlappa layout)**
- Kurlappa layout - 2nd Cross Road
- Kurlappa layout - 2nd A Cross Road
- Kurlappa layout - 3rd A Cross Road
- Kurlappa layout - 4th A Cross Road
- Kurlappa layout - 4th Cross Road
- Kurlappa layout - 5th A Cross Road
- Kurlappa layout - 5th Cross Road

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- Kurlappa layout - 6th A Cross Road
- Kurlappa layout - 6th Cross Road
- Kurlappa layout - 3rd main road From 7th cross
- Kurlappa layout - 2nd main road From 7th cross
- Kurlappa layout - Strom Water Drain Left Side
- Kurlappa layout - Strom Water Drain Right Side
- Kurlappa layout - 2nd Cross Road
- Kurlappa layout - 2nd A Cross Road
- Kurlappa layout - 3rd Cross Road
- Kurlappa layout - 3rd A Cross Road
- Kurlappa layout - 4th A Cross Road
- Kurlappa layout - 4th Cross Road
- Kurlappa layout - 5th A Cross Road
- Kurlappa layout - 5th Cross Road
- Kurlappa layout - 6th A Cross Road
- Kurlappa layout - 6th Cross Road
- Kurlappa layout - Main Road LHS
- Kurlappa layout - Main Road
- **List of Roads in Ward No. 02 (Kamakshamma Layout)**
- Kamakshamma Layout - N Seeta Ramaya Circle (W0394)
- Kamakshamma Layout - 5th Cross Road (W0397)
- Kamakshamma Layout - 5th A Cross (W0318)
- Kamakshamma Layout - 5th A Cross Road (W0318)
- Kamakshamma Layout - Cross Road
- Kamakshamma Layout - (W0367)
- Kamakshamma Layout - (W0367)
- Kondappa Layout - 9th Cross Road (W0401)
- **List of Roads in Ward No. 02 (Manavarthi Thota)**
- Puskarni Road - 2nd Cross Road (W0442)
- Puskarni Road- 3rd Cross Road (W0434)
- Puskarni Road- 4th Cross Road (W0432)
- Puskarni Road- Cross Road-1
- Manavarthi Thota Road (W0461)

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- Chandra Silks Road
- W0461
- Kere Kodi Road
- Good Will School Cross Road
- **List of Roads in Ward No. 04 (Chikkabommasandra Old Village)**
- Chikkabommasandra Old Village - Temple Road (W0174)
- Chikkabommasandra Old Village - Cross Road-1
- Chikkabommasandra Old Village - Temple Front Side
- Chikkabommasandra Old Village - Cross Road-2
- Chikkabommasandra Old Village - Cross Road-3 (W0233)
- Chikkabommasandra Old Village - Cross Road-6 (W0233)
- Judicial Layout - 21st Main Road
- Judicial Layout - 6th Cross Road
- Judicial Layout - 4th Main Road
- Cross Road
- Cross Road

2.2 Existing project roads

2.2.1 Terrain

Terrain is classified by general slope of the country across the alignment, based on this criterion majority of the project roads pass through Plain terrain.

2.2.2 Alignment

The existing roads have the carriage widths varying from 2.3 m to 8.8 m and the existing gradients of the project roads are within acceptable limits as per IRC: 86. Table 1 shows the list of project roads with their carriage way widths.

2.2.3 Climate

Due to its elevation, Bangalore enjoys a pleasant climate throughout the year, with temperatures ranging between 33°C and 16°C, with an average of 24°C. The summer heat is moderated by occasional thunderstorms and squalls. Bangalore receives adequate rainfall of

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about 860 mm from the Northeast Monsoon as well as the Southwest Monsoon. The wettest months are August, September and October.

2.2.4 Carriageway Width

The existing carriageway width varies from 2.3 m to 8.8 m. Details of carriageway width are as shown in Table 2.1 below,

Table 2.1 - LIST OF ROADS WITH THEIR CARRIAGE WAY WIDTHS

Sl.No	Name of the Road	Carriage Way Width in m
	Ward No.01	
	APTS Premises Layout	
1	Cross Road-1	4.40
2	Kapila Hostel Road	7.10
3	Ground Right Side Road	4.80
4	Hospital Road	6.60
5	Cross Road-2	6.00
6	Office Road	4.60
7	APTS Parking Lot Road	6.90
8	Hospital Back Side Road	6.10
9	Connecting Road	6.10
	Kurlappa layout	
10	2nd Cross Road	4.20
11	2nd A Cross Road	4.30
12	3rd A Cross Road	4.10
13	4th A Cross Road	4.05
14	4th Cross Road	4.15
15	5th A Cross Road	4.25
16	5th Cross Road	4.28
17	6th A Cross Road	3.90
18	6th Cross Road	3.65
19	3rd main road From 7th cross	4.90
20	2nd main road From 7th cross	4.70
21	Strom Water Drain Left Side	3.20
22	Strom Water Drain Right Side	3.70
	Ward No.02	
	Kamakshamma Layout	
23	N Seeta Ramaya Circle (W0394)	3.90
24	5th Cross Road (W0397)	5.80
25	5th A Cross (W0318)	4.90

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26	5th A Cross Road (W0318)	6.20
27	Cross Road	4.00
28	(W0367)	5.80
29	(W0300)	4.60
	Kondappa Layout	
30	9th Cross Road (W0401)	3.40
	Puskarni Road	
31	2nd Cross Road (W0442)	2.60
32	3rd Cross Road (W0434)	2.60
33	4th Cross Road (W0432)	5.40
34	Cross Road-1	2.30
35	Cross Road	4.8
36	Cross Road	4.4
	Ward No.04	
	Chikkabommasandra Old Village	
37	Temple Road (W0174)	5.00
38	Cross Road-1	2.30
39	Temple Front Side	2.80
40	Cross Road-2	2.90
41	Cross Road-3 (W0233)	3.90
42	Cross Road-6 (W0233)	3.50
	Judicial Layout	
43	21st Main Road	8.80

2.2.5 Pavement Condition

The existing pavement conditions are analyzed based on visual inspection as per IRC 81-1997 Table -1. The Roads as per the Visual Inspection were found to be in Good to Poor condition. This may be due to improper material in subgrade, compaction or movement of heavily loaded trucks. The summaries of pavement condition obtained by visual inspection are listed in Table 2.2 below.

TABLE 2.2: PAVEMENT CLASSIFICATION BASED ON VISUAL INSPECTION

Sl.No	Name of the Road	Road Condition
	Ward No.01	
	APTS Premises Layout	
1	Cross Road-1	Poor
2	Kapila Hostel Road	Poor
3	Ground Right Side Road	Poor
4	Hospital Road	Poor

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5	Cross Road-2	Poor
6	Office Road	Poor
7	APTS Parking Lot Road	Poor
8	Hospital Back Side Road	Poor
9	Connecting Road	Poor
	Kurlappa layout	
10	2nd Cross Road	Poor
11	2nd A Cross Road	Poor
12	3rd A Cross Road	Poor
13	4th A Cross Road	Poor
14	4th Cross Road	Poor
15	5th A Cross Road	Poor
16	5th Cross Road	Poor
17	6th A Cross Road	Poor
18	6th Cross Road	Poor
19	3rd main road From 7th cross	Poor
20	2nd main road From 7th cross	Poor
21	Strom Water Drain Left Side	Poor
22	Strom Water Drain Right Side	Poor
Ward No.02		
	Kamakshamma Layout	
23	N Seeta Ramaya Circle (W0394)	Poor
24	5th Cross Road (W0397)	Poor
25	5th A Cross (W0318)	Poor
26	5th A Cross Road (W0318)	Poor
27	Cross Road	Poor
28	(W0367)	Poor
29	(W0300)	Poor
	Kondappa Layout	
30	9th Cross Road (W0401)	Poor
	Puskarni Road	
31	2nd Cross Road (W0442)	Poor
32	3rd Cross Road (W0434)	Poor
33	4th Cross Road (W0432)	Poor
34	Cross Road-1	Poor
35	Cross Road	Poor
36	Cross Road	Poor
Ward No.04		
	Chikkabommasandra Old Village	
37	Temple Road (W0174)	Poor
38	Cross Road-1	Poor
39	Temple Front Side	Poor

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40	Cross Road-2	Poor
41	Cross Road-3 (W0233)	Poor
42	Cross Road-6 (W0233)	Poor
	Judicial Layout	
43	21st Main Road	Poor

2.2.6 Land Use along the project highway

Land use along majority of roads is predominantly for built up area. The settlements are used for residential and commercial purposes.

2.3 Traffic flow conditions

Traffic on these project roads is of mixed type. Majority of roads only carry passenger vehicle most of the time, and there are also commercial vehicles ply on some roads. Commercial vehicles include 2-axle and 3-axle trucks and LCVs.

The intensity of traffic on this stretch is likely increase in future, the reason being:

- The Bangalore Mahanagara Palike became Bruhat Bangalore Mahanagara Palike after inclusion of 7 CMC, 1TMC & 111 Villages adjoining to the CMC areas vide Government of Karnataka Notification No. UDD 92 MNY 2006 dated 02.11.2006. To provide better transport facility, to improve the quality of urban civic services better roads are needed. At present the existing roads in these newly added areas are narrow without proper Drainage, Footpath, and Culverts etc. The BBMP has taken up an ambitious plan to upgrade Arterial & Sub Arterial Road network in these newly added areas of BBMP in view of providing better infrastructure.
- Roads in and around EPIP zones are being upgraded to arterial road standards which will result in enormous increase in the traffic.
- The number of commercial and residential plots in the given area is high.
- Rising traffic congestion is one of the key issues in the City. Though the length of roads available is good, the problem lies with the restricted widths.

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2.4 Cross Drainage Structures and Side Drains

There are no major CD structures along the project road except for the cross roads. The condition of the existing CD structures is good.

2.5 Utilities

- **HT Lines**

  HT lines do not cross along the project roads

- **Light Poles**

  Large numbers of light poles are present along the project roads in regular intervals

2.6 Trees

The project roads consist of trees beside the carriageway at regular intervals. Also tree pits are constructed for all the trees on either side of the roads for watering the trees. Curb stones are laid all round the tree pits for protection

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CONCLUSION

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CHAPTER - 3

CONCLUSIONS

3.1 General

The primary data collected from the site provides a clear picture of the site conditions, and also gives us a good insight about the deficiencies and the scope for improvements. The primary data coupled with the good engineering expertise lead us in giving apt and economical recommendations for the improvements. A budget of Rs. 9,70,00,000/- (Rs. Nine Crore Seventy Lakhs Only) has been allocated for this project. Hence, the provisions of items made in the cost estimate are in consensus with the allocated budget. The improvement proposal includes the following:

3.1.1. Geometric Improvements:

- Improvements of existing carriageway
- Improvements to cross sectional elements
- Improvements to horizontal alignment
- Improvements to longitudinal profile

3.1.2. Strengthening of Existing Pavements:

- **Pavement Overlay design**
- Road Drainage
- Road Furniture and Appurtenances
- Pedestrian Facilities
- Aesthetics

The summary of improvement proposals along the project roads in Ward no.01, 02 & 04 Conforming to Design Standards with all the Relevant Details such as Length and Width of existing roads, Plans and Construction Costs has been prepared. The details of improvement proposals are discussed in subsequent sections.

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3.2. Improvement proposal for Carriageway

Since the majority of the roads are Arterial and sub-arterial roads where the Traffic intensity is less than 10msa, Table 3.1 shows the improvement proposals and pavement composition for the existing roads.

TABLE 3.1: IMPROVEMENT PROPOSAL AND PAVEMENT CONDITION DETAILS

FLEXIBLE PAVEMENT

Sl.No	Name of the Road	BC (mm)
	Ward No.01	
	APTS Premises Layout	
1	Kapila Hostel Road	40
2	Ground Right Side Road	40
3	Hospital Road	40
4	Cross Road-2	40
5	Office Road	40
6	APTS Parking Lot Road	40
7	Hospital Back Side Road	40
8	Connecting Road	40
	Ward No.04	
	Judicial Layout	40
9	21st Main Road	40

RIGID PAVEMENT

Sl.No	Name of the Road	DLC (mm)	PQC (mm)
	Ward No.01		
	APTS Premises Layout		
1	Cross Road-1	150	150
	Kurlappa layout		
2	2nd Cross Road	150	150
3	2nd A Cross Road	150	150
4	3rd A Cross Road	150	150
5	4th A Cross Road	150	150
6	4th Cross Road	150	150
7	5th A Cross Road	150	150
8	5th Cross Road	150	150

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9	6th A Cross Road	150	150
10	6th Cross Road	150	150
11	3rd main road From 7th cross	150	150
12	2nd main road From 7th cross	150	150
13	Strom Water Drain Left Side	150	150
14	Strom Water Drain Right Side	150	150
Ward No.02			
	Kamakshamma Layout		
15	N Seeta Ramaya Circle (W0394)	150	150
16	5th Cross Road (W0397)	150	150
17	5th A Cross (W0318)	150	150
18	5th A Cross Road (W0318)	150	150
19	Cross Road	150	150
20	(W0367)	150	150
21	(W0300)	150	150
	Kondappa Layout		
22	9th Cross Road (W0401)	150	150
	Puskarni Road		
23	2nd Cross Road (W0442)	150	150
24	3rd Cross Road (W0434)	150	150
25	4th Cross Road (W0432)	150	150
26	Cross Road-1	150	150
27	Cross Road	150	150
28	Cross Road	150	150
Ward No.04			
	Chikkabommasandra Old Village		
29	Temple Road (W0174)	150	150
30	Cross Road-1	150	150
31	Temple Front Side	150	150
32	Cross Road-2	150	150
33	Cross Road-3 (W0233)	150	150
34	Cross Road-6 (W0233)	150	150

3.3. Improvement Proposal for Side Drains

Adequate drainage is a primary requirement for maintaining the structural soundness and functional efficiency of a road in addition to preserving the valuable road assets created. Pavement structure including subgrade must be protected from any ingress of water, otherwise over a period of time it may weaken the sub grade by saturating it and cause distress in the pavement structure. Hence, rapid dispersal of water from pavement and sub

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grade is a basic consideration in road design. Also, quick drainage takes away the water from pavement's surface and reduces chances of skidding of vehicles.

The requirements of road drainage are essentially based on IRC: SP-42-" Guidelines on Road Drainage" and IRC:SP-50 -"Guidelines on Urban Drainage". Camber of 3.0 is provided for the carriageway. For longitudinal drains, a minimum longitudinal gradient of 0.3 percent shall be ensured for satisfactory drainage.

3.4. Improvements Related to Utility, Road Furniture and Appurtenances

Utility and Importance of the Road are greatly enhanced by installing Road Furniture and Appurtenances at appropriate locations along the Project Road, which ensures Improved Road Safety. Planning and Design of Road Furniture and Appurtenances are as per the Guidelines stipulated in IRC. Detailing of each of these Components has been done so that to integrate the same with the Road Improvement Scheme.

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COST ESTIMATES

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CHAPTER - 4

COST ESTIMATES

4.1. Detailed Cost Estimate

Detailed cost estimate for various works listed in "Improvements of Roads , Development of Parks and Construction of Buildings in Ward No01,02,03 & 04 of Yelahanka Division Under 2021-22 District Minister Grants. (Package-15)" has been worked out based on detailed engineering design.

4.2. General

Cost Estimate is an important part of the DPR as it provides vital input to financial evaluation of the project. The cost estimates have been prepared for strengthening of the existing road, repairs and improvements to longitudinal drains, road furniture and appurtenances.

4.3. Basic rates

As part of Detailed Project Report, Rate Analysis of each of the item has been prepared by adopting PW, P & IWTD SR 2018-19, Bangalore Circle. The rates as given in PW, P & IWTD SR are to be enhanced by 6% for additional weight age for the works to be executed under extra ordinary conditions for Bangalore Metropolitan Limits. Items not covered in NHSR / PW, P & IWTD SR have been based on market rates.

4.4. Utility Relocation

Provision of 1.5% of Construction cost is made in the cost estimated for raising and or shifting electric supply lines, telephone lines, OFC lines and other utilities.

4.5. Project Management and Quality Control

Provision of 2.0% of Construction Cost has been made towards Cost of DPR Preparation, PMC and Proof Checking.

4.6. Project Cost

The total project cost for ***Preparation of DPR for*** "Improvements of Roads , Development of Parks and Construction of Buildings in Ward No01,02,03 & 04 of Yelahanka Division Under 2021-22 District Minister Grants. (Package-15)" is 9,70,00,000.00 and the Detailed Cost Estimate is enclosed.

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DETAILED ESTIMATE

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COMBINED ESTIMATE

For the Work of

"Improvements of Roads , Development of Parks and Construction of Buildings in Ward No 01,02,03 & 04 of Yelahanka Division Under 2021-22 District Minister Grants. (Package-15)"

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DETAILED ESTIMATE

For the Work of

"Improvements To Roads And Drains At Apts Premises In Kempegowda Ward No-01"

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DETAILED ESTIMATE

For the Work of

"Improvements of Balance Main and Cross Roads of Kurlappa Layout in Kempegowda Ward No-01."

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DETAILED ESTIMATE

For the Work of

"Improvements To Roads And Drains At 1st, 5th And 5th A Cross At Western Side Of Kamakshamma Layout And 9th, 11th, 13th, 13th A And 28th Cross Roads At Western Side Of Kondappa Layout In Chowdeshwari Ward No-02"

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DETAILED ESTIMATE

For the Work of

"Improvements of Roads and Drains at 2nd, 3rd & 4th Cross at Besthara Bheedhi, Puskarni Road and Manavarthi Thota in Chowdeshwari Ward No-02"

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DETAILED ESTIMATE

For The Work Of

"Improvements to Roads and Drains at Chikkabommasandra Main Road and Surrounding Areas in Yelahanka Upanagara Ward No-04"

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DETAILED ESTIMATE

For the Work of

"Construction of Compound wall at Puttenahalli and Nagenahalli Govt School in Choudeshwari Ward No 02"

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DETAILED ESTIMATE

For the Work of

"Special Repairs To Anganavadi Building At Kondappa Layout And Providing Grill Work To Anganavadi Building At Kotebheedi In Chowdeshwari Ward No-02"

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DETAILED ESTIMATE

For the Work of

"Providing Fencing And Other Devolopmental Works To Masti Venkateshwara Iyangar Park In Attur Ward No - 03"

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DETAILED ESTIMATE

For the Work of

"Balance Developmental Works to Major Sandeep Unnikrishnan Park in Yelahanka Upanagara Ward No-04"

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DETAILED ESTIMATE

For The Work Of

"Construction Of Dyana Mandhira At Gkvk Layout In Yelahanka Upanagara Ward No -04"

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DRAFT TENDER SCHEDULE

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BILL OF QUANTITIES

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ANNEXURES

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TYPICAL CROSS SECTION

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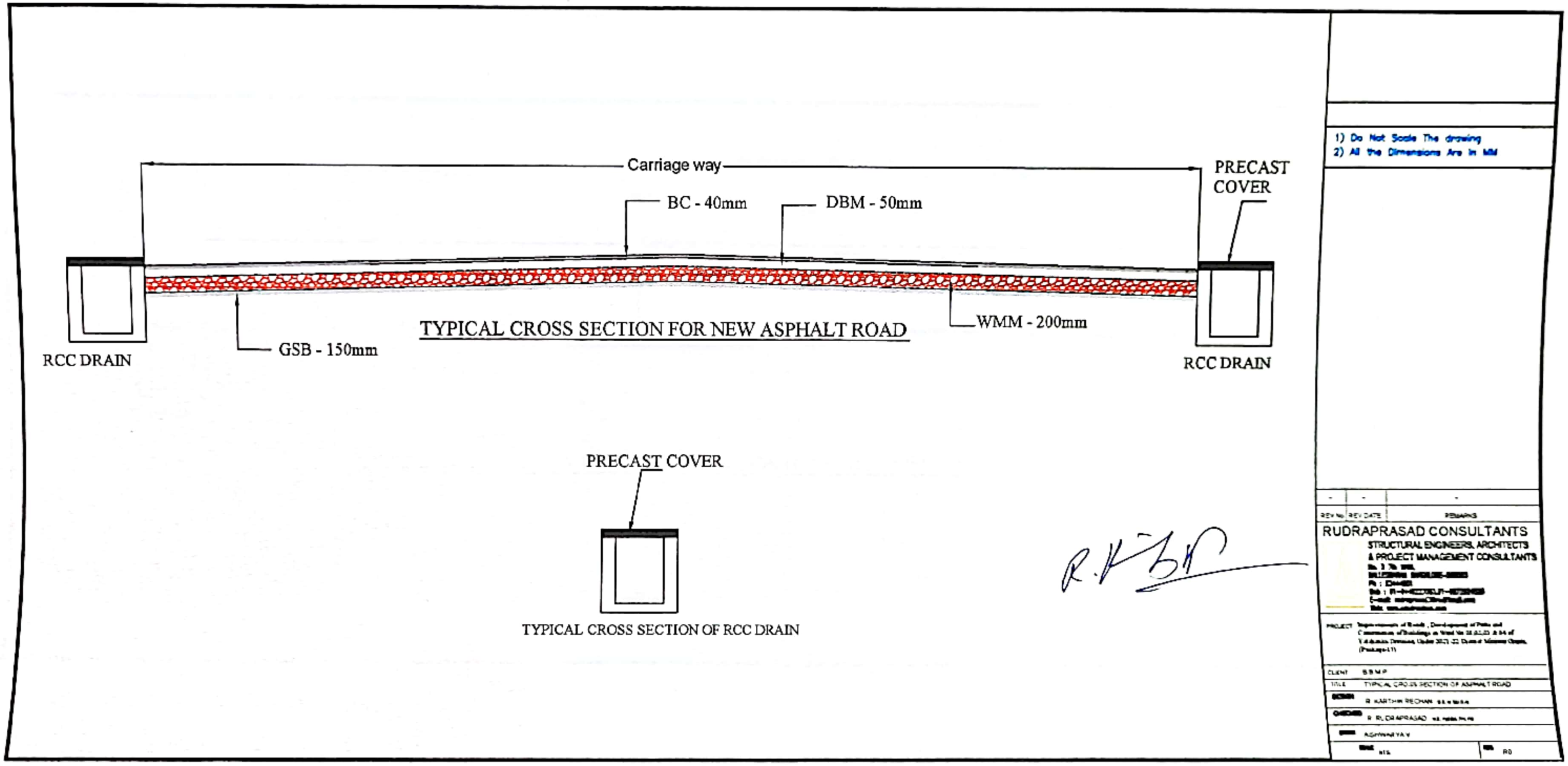

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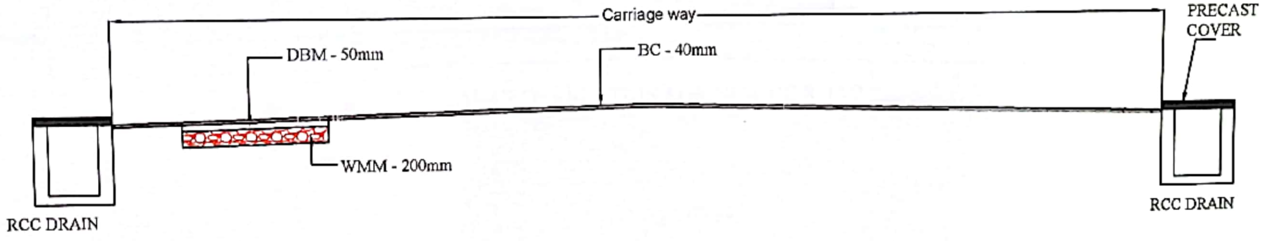


TYPICAL CROSS SECTION FOR RECONSTRUCTION OF ROAD CUT PORTION

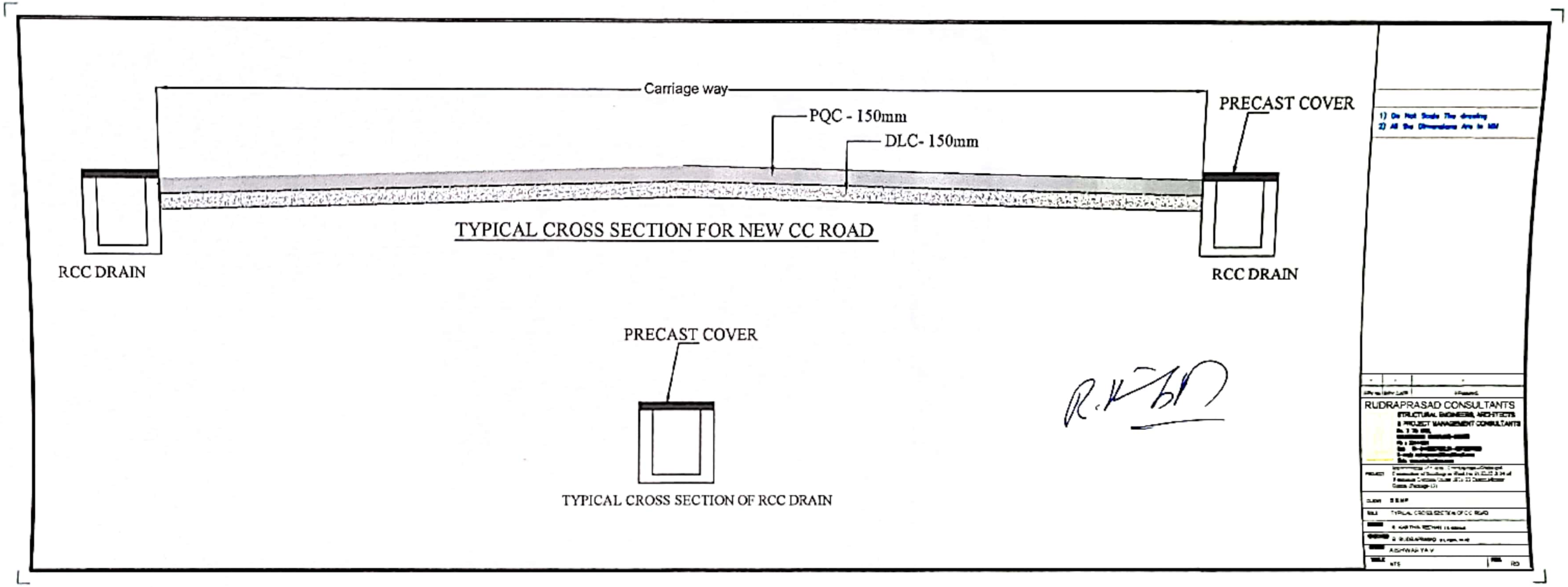
1) Do Not Scale The drawing
2) All the Dimensions Are In MM

RUDRAPRASAD CONSULTANTS
STRUCTURAL ENGINEERS, ARCHITECTS
& PROJECT MANAGEMENT CONSULTANTS

TYPICAL CROSS SECTION OF C C ROAD

AISHWARYA V

NTS



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PHOTOGRAPHS

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Improvements of Roads , Development of Parks and Construction of Buildings in Ward No 01,02,03 & 04 of Yelahanka Division Under 2021-22 District Minister Grants. (Package-15)

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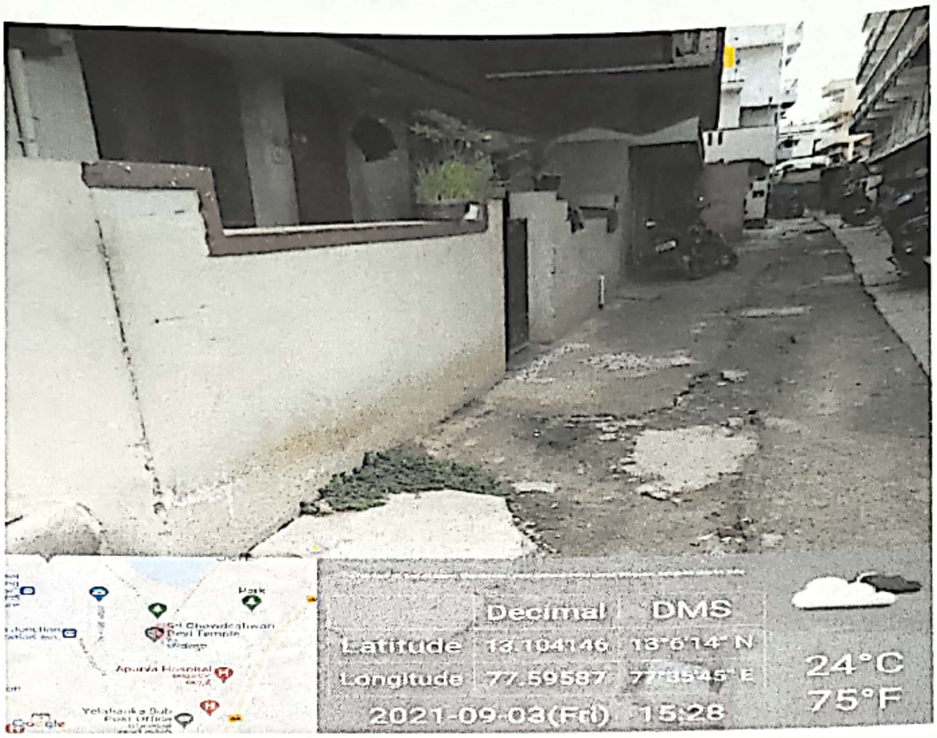
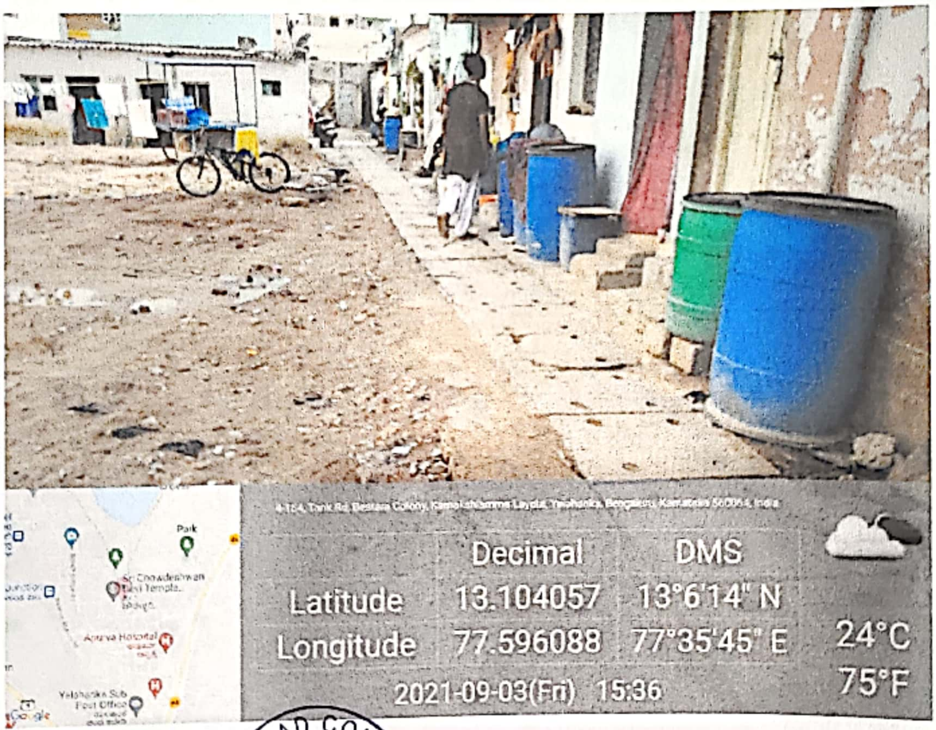
Improvements of Roads , Development of Parks and Construction of Buildings in Ward No 01,02,03 & 04 of Yelahanka Division Under 2021-22 District Minister Grants. (Package-15)





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Improvements of Roads , Development of Parks and Construction of Buildings in Ward No 01,02,03 & 04 of Yelahanka Division Under 2021-22 District Minister Grants. (Package-15)

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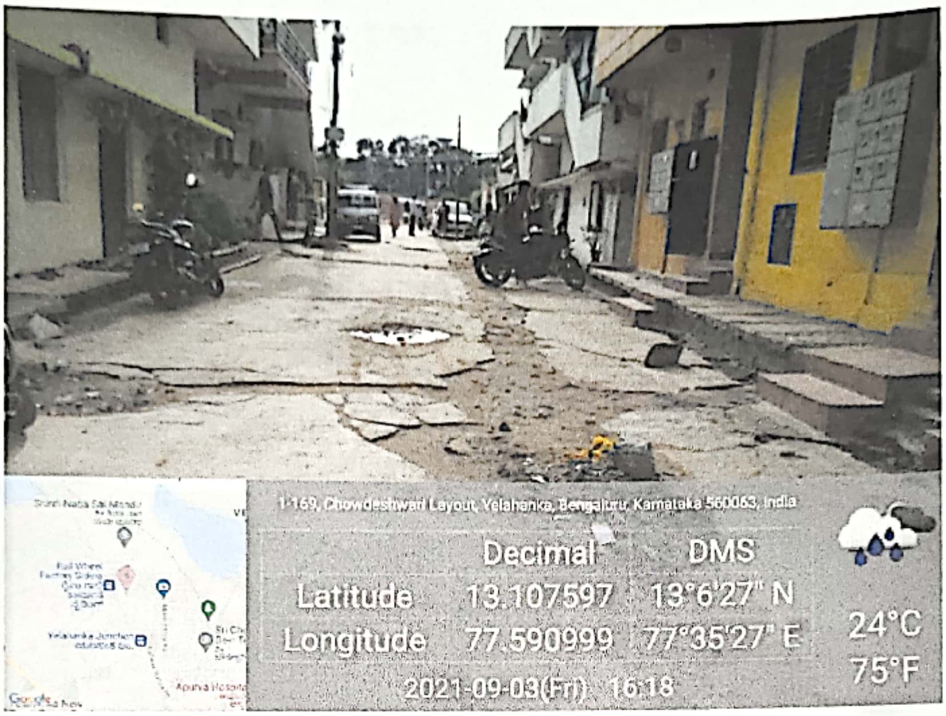
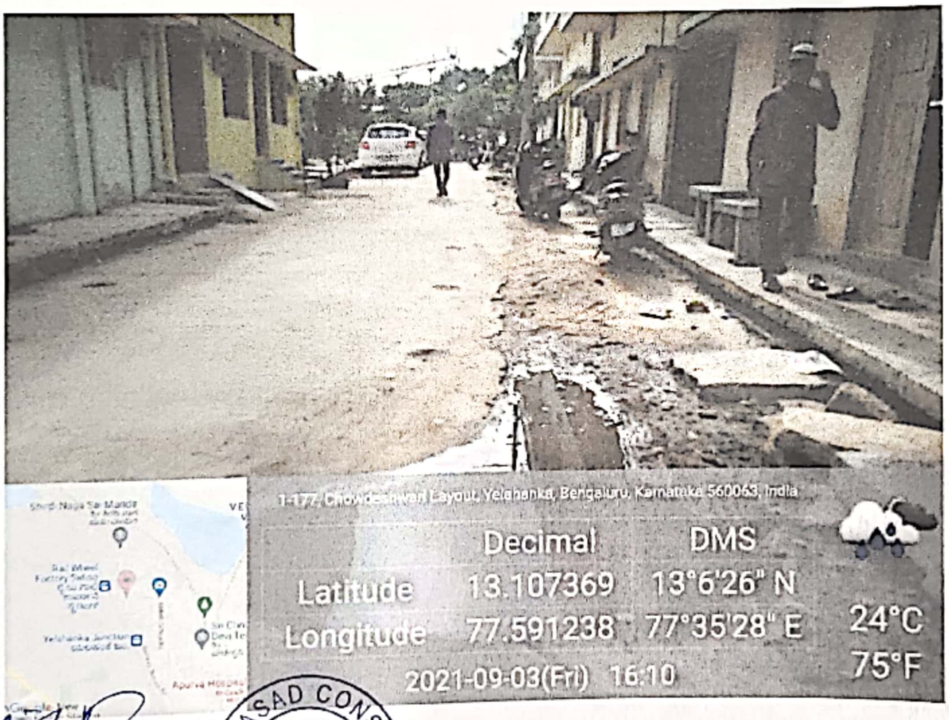
Improvements To Roads And Drains At 1st, 5th And 5th A Cross At Western Side Of Kamakshamma Layout And 9th, 11th, 13th, 13th A And 28th Cross Roads At Western Side Of Kondappa Layout In Chowdeshwari Ward No-02





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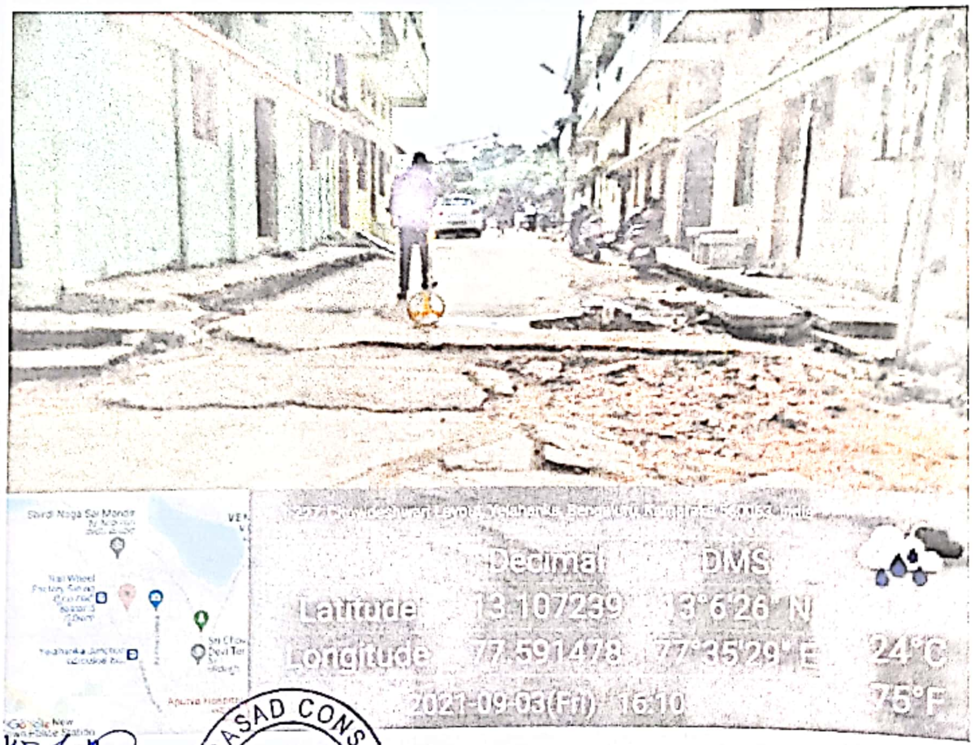
Improvements To Roads And Drains At 1st, 5th And 5th A Cross At Western Side Of Kamakshamma Layout And 9th, 11th, 13th, 13th A And 28th Cross Roads At Western Side Of Kondappa Layout In Chowdeshwari Ward No-02



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Improvements To Roads And Drains At 1st, 5th And 5th A Cross At Western Side Of Kamakshamma Layout And 9th, 11th, 13th, 13th A And 28th Cross Roads At Western Side Of Kondappa Layout In Chowdeshwari Ward No-02

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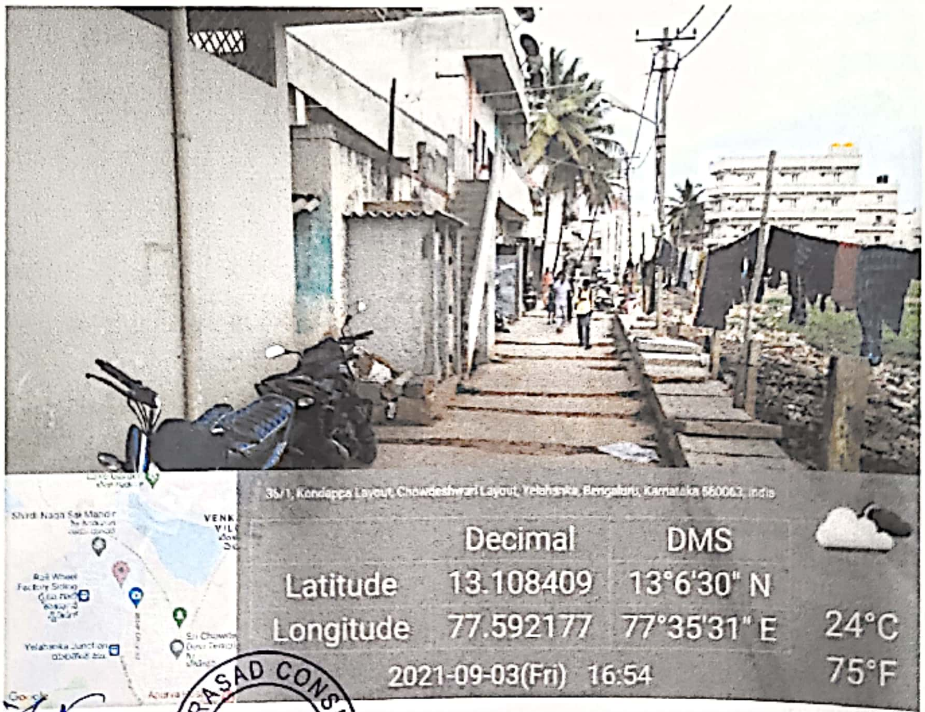

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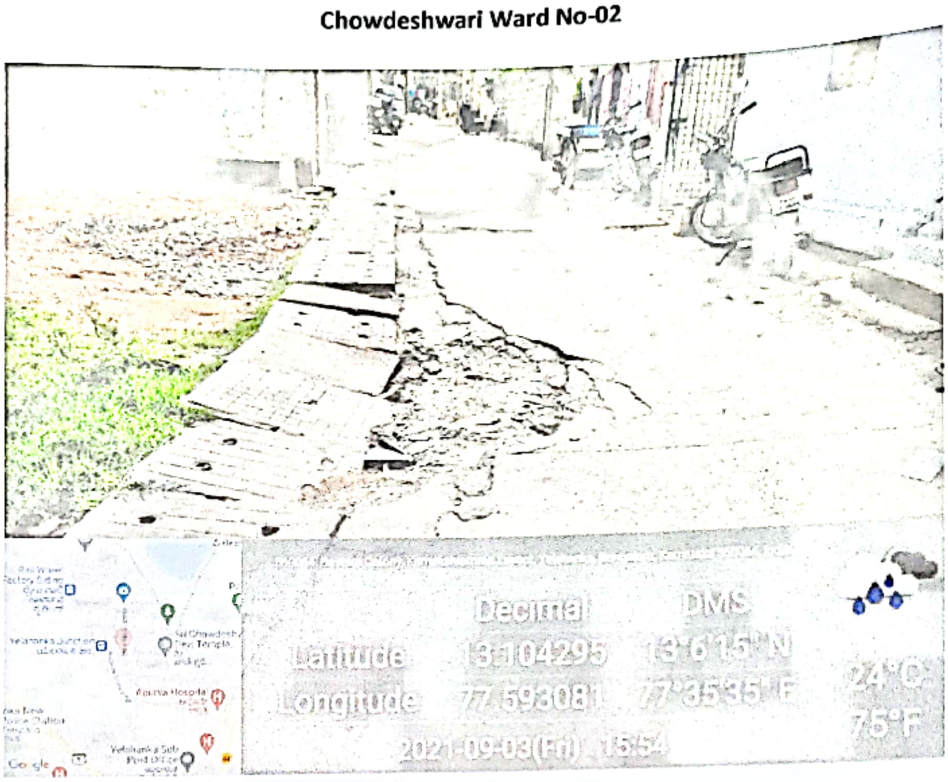
Improvements To Roads And Drains At 1st, 5th And 5th A Cross At Western Side Of Kamakshamma Layout And 9th, 11th, 13th, 13th A And 28th Cross Roads At Western Side Of Kondappa Layout In Chowdeshwari Ward No-02



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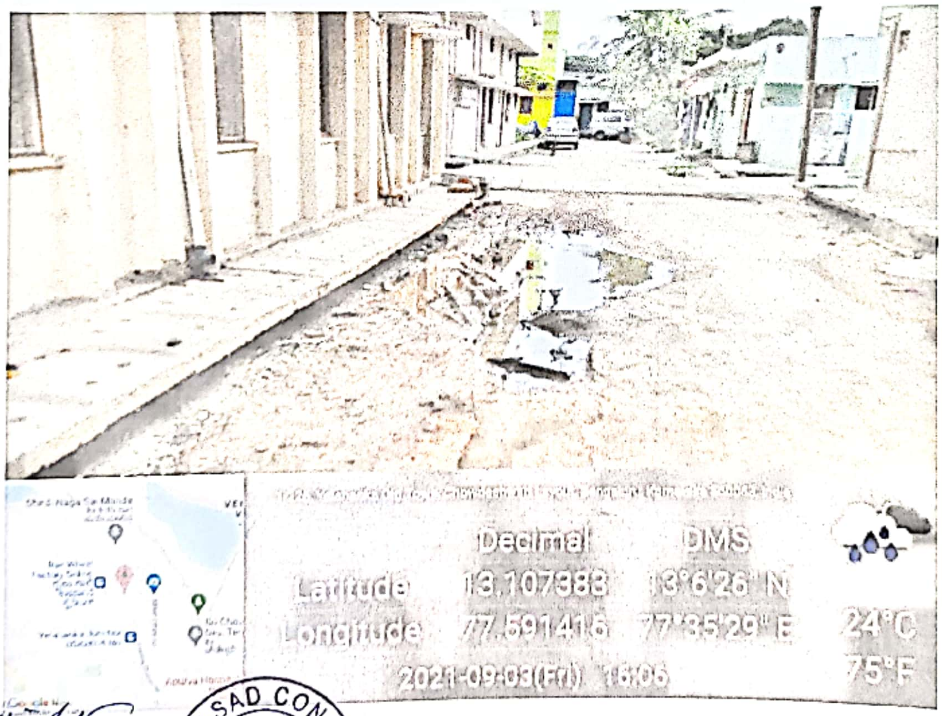
Improvements To Roads And Drains At 1st, 5th And 5th A Cross At Western Side Of Kamakshamma Layout And 9th, 11th, 13th, 13th A And 28th Cross Roads At Western Side Of Kondappa Layout In Chowdeshwari Ward No-02



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IMPROVEMENTS OF ROADS AND DRAINS AT 2ND, 3RD & 4TH CROSS AT BESTHARA BHEEDHI, PUSKARNI ROAD AND MANAVARTHI THOTA IN CHOWDESHWARI WARD NO-02

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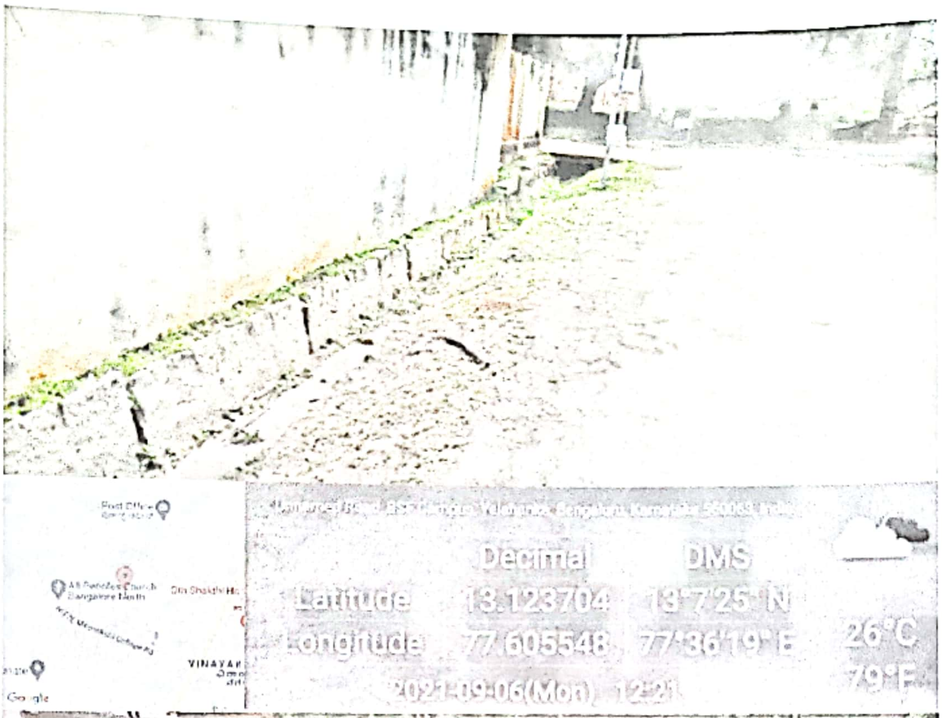
IMPROVEMENTS OF ROADS AND DRAINS AT 2ND, 3RD & 4TH CROSS AT BESTHARA BHEEDHI, PUSKARNI ROAD AND MANAVARTHI THOTA IN CHOWDESHWARI WARD NO-02



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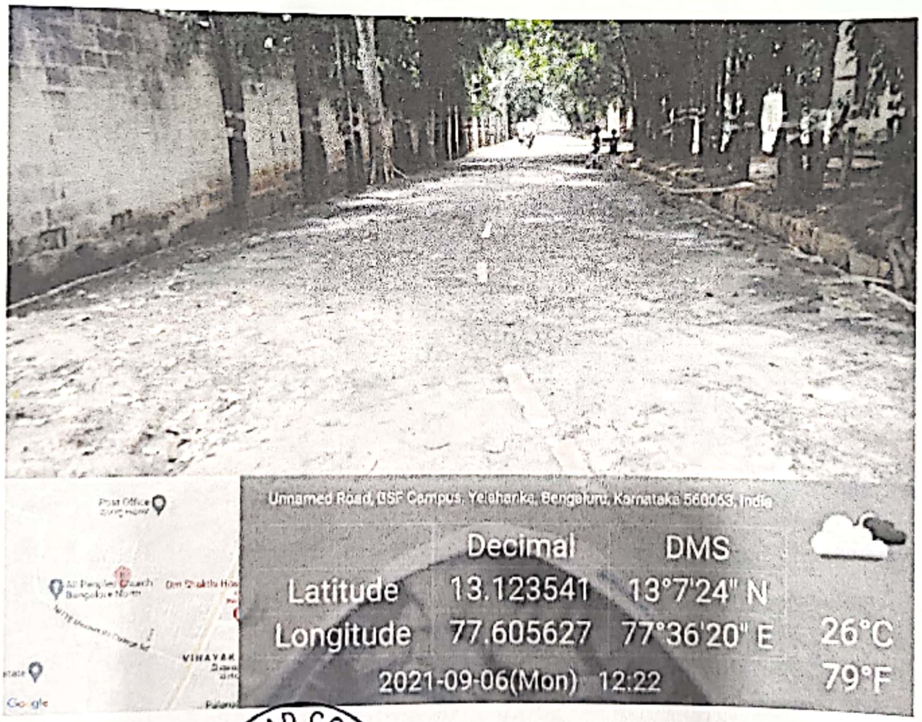
IMPROVEMENTS OF ROADS AND DRAINS AT 2ND, 3RD & 4TH CROSS AT BESTHARA BHEEDHI, PUSKARNI ROAD AND MANAVARTHI THOTA IN CHOWDESHWARI WARD NO-02



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IMPROVEMENTS OF ROADS , DEVELOPMENT OF PARKS AND CONSTRUCTION OF BUILDINGS IN WARD NO 01,02,03 & 04 OF YELAHANKA DIVISION UNDER 2021-22 DISTRICT MINISTER GRANTS. (PACKAGE-15)

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IMPROVEMENTS OF ROADS , DEVELOPMENT OF PARKS AND CONSTRUCTION OF BUILDINGS IN WARD NO 01,02,03 & 04 OF YELAHANKA DIVISION UNDER 2021-22 DISTRICT MINISTER GRANTS. (PACKAGE-15)

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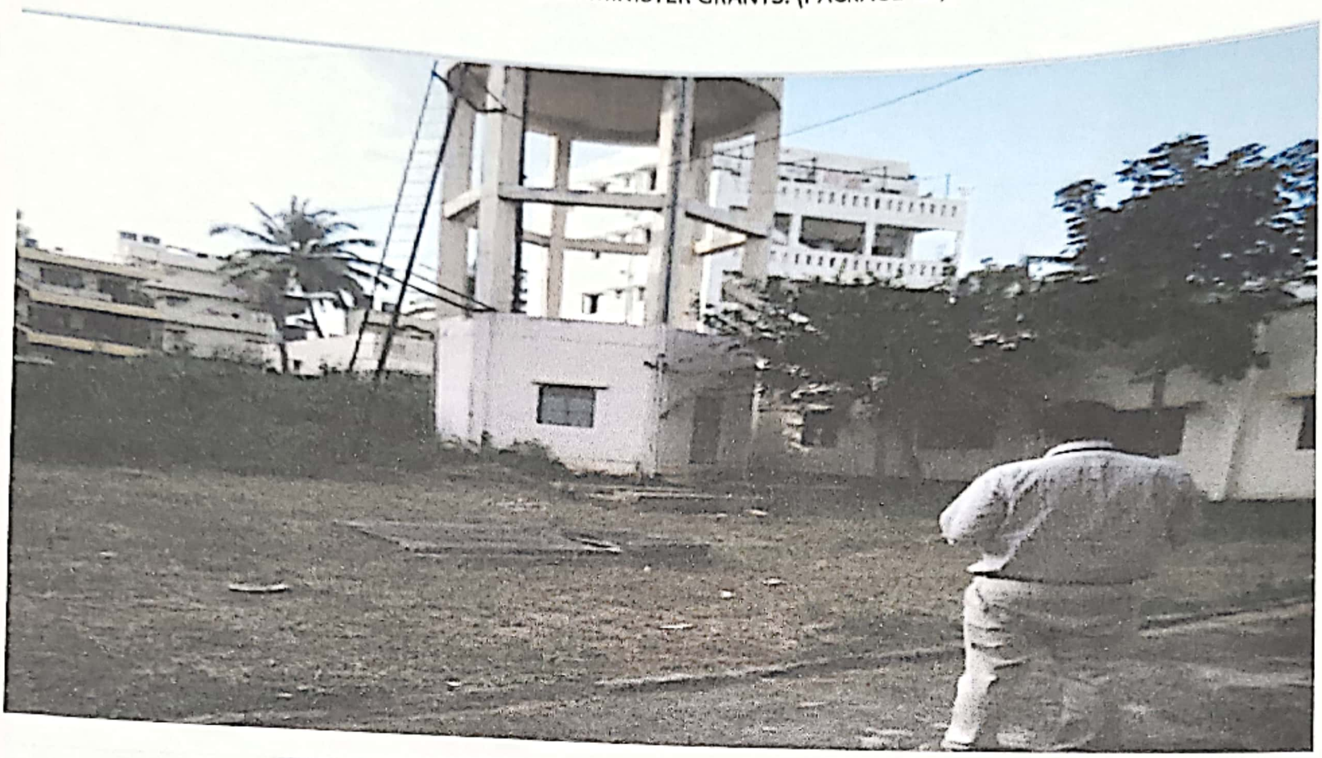

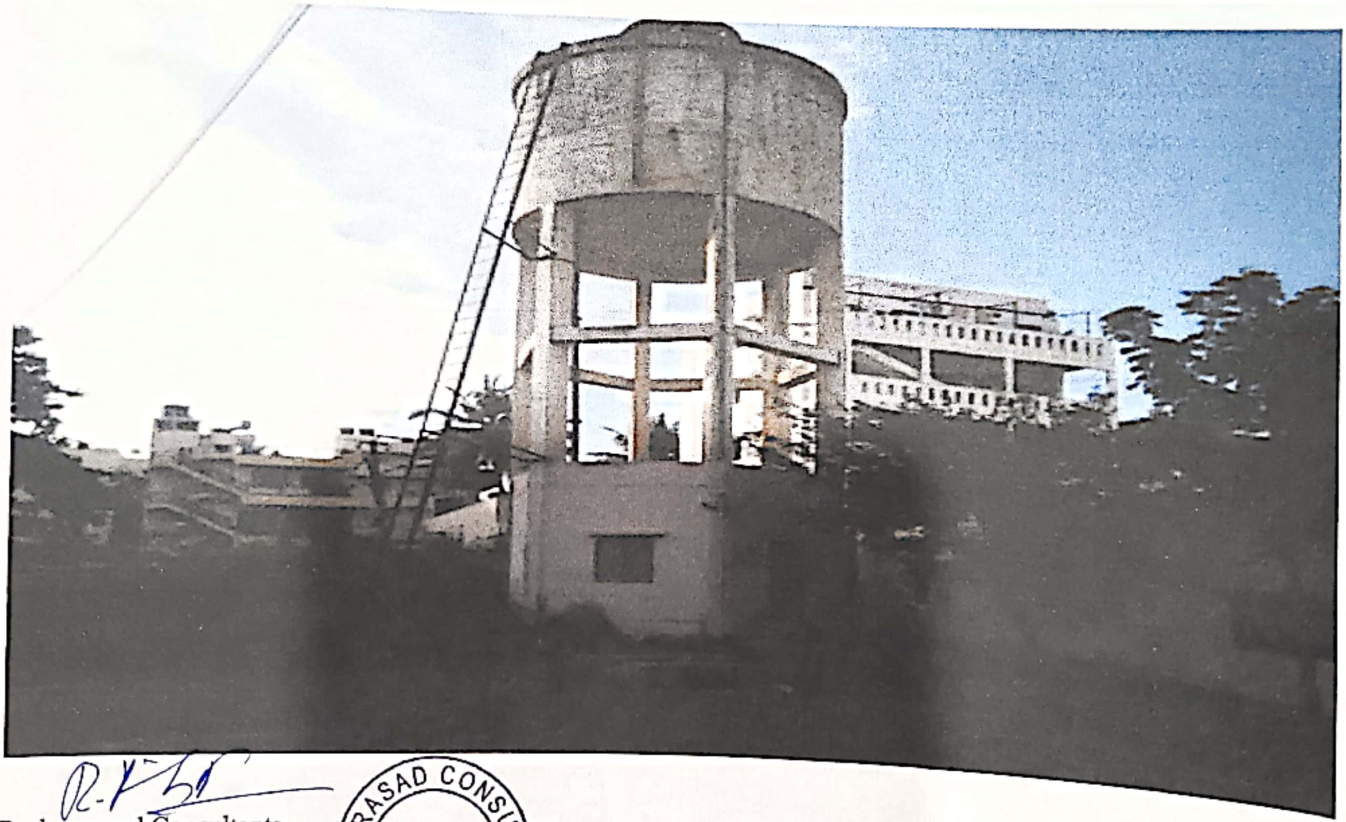

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IMPROVEMENTS OF ROADS , DEVELOPMENT OF PARKS AND CONSTRUCTION OF BUILDINGS IN WARD NO 01,02,03 & 04 OF YELAHANKA DIVISION UNDER 2021-22 DISTRICT MINISTER GRANTS. (PACKAGE-15)

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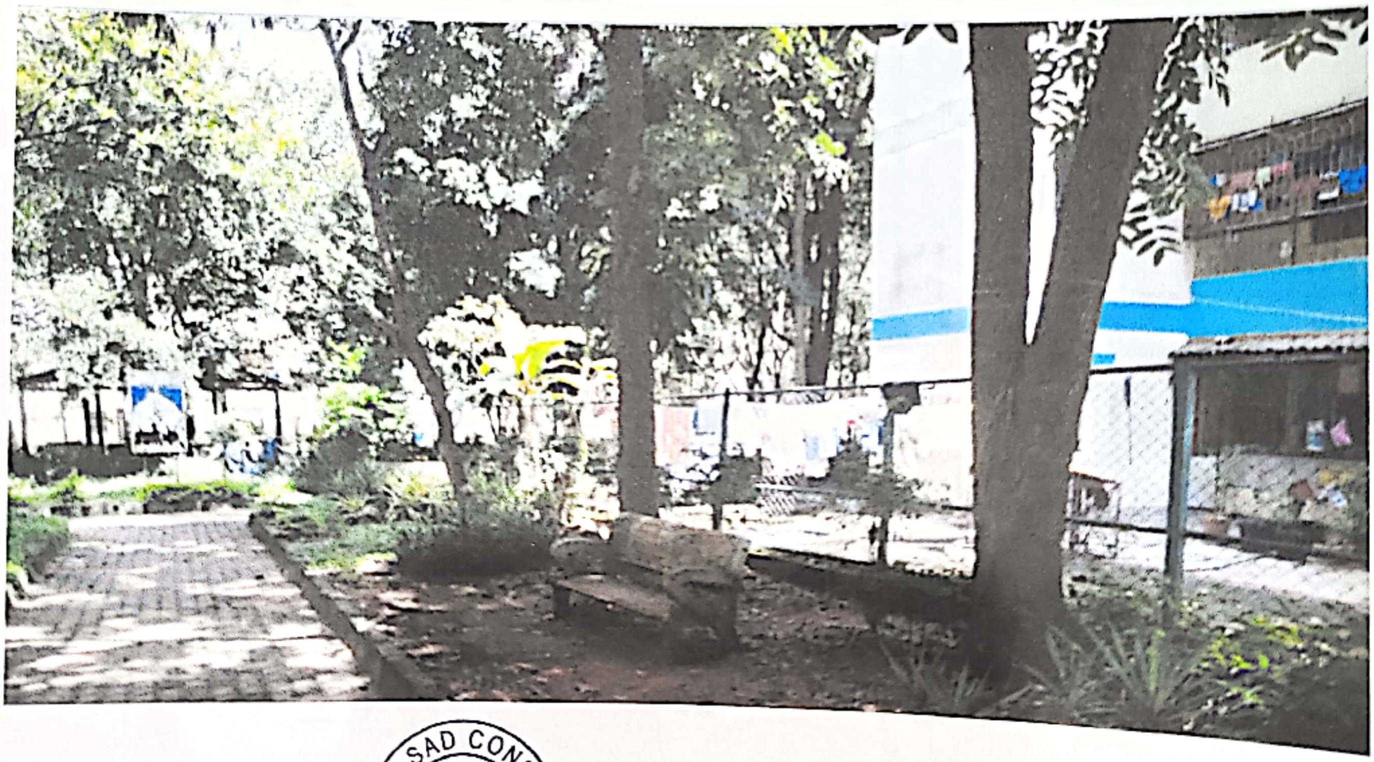

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WARD MAP

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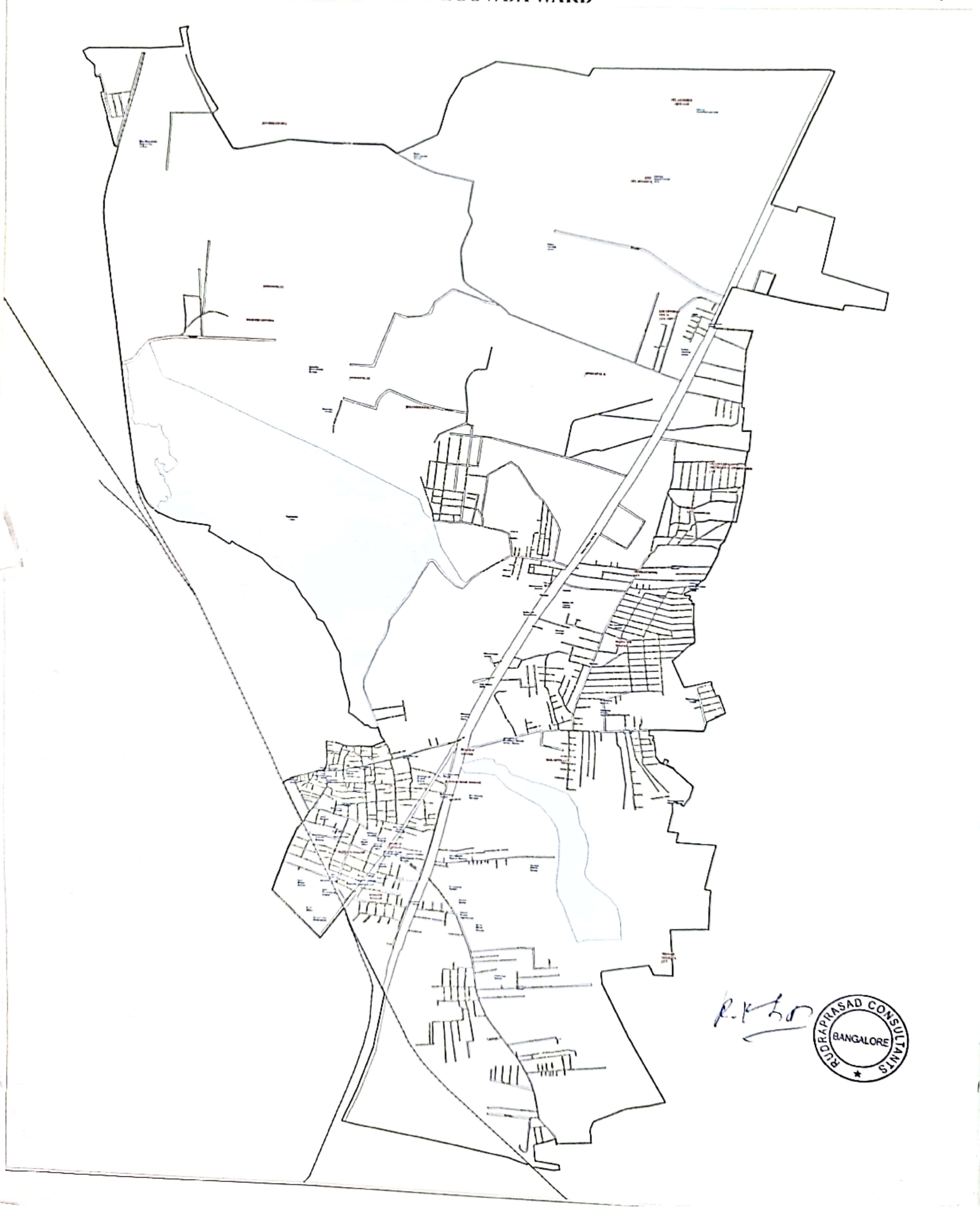
BRUHAT BENGALURU MAHANAGARA PALIKE

1-KEMPEGOWDA WARD



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BRUHAT BENGALURU MAHANAGARA PALIKE

2-CHOWDESHWARI WARD

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BRUHAT BENGALURU MAHANAGARA PALIKE
4-YELAHANKA SATELLITE TOWN

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KEY MAP

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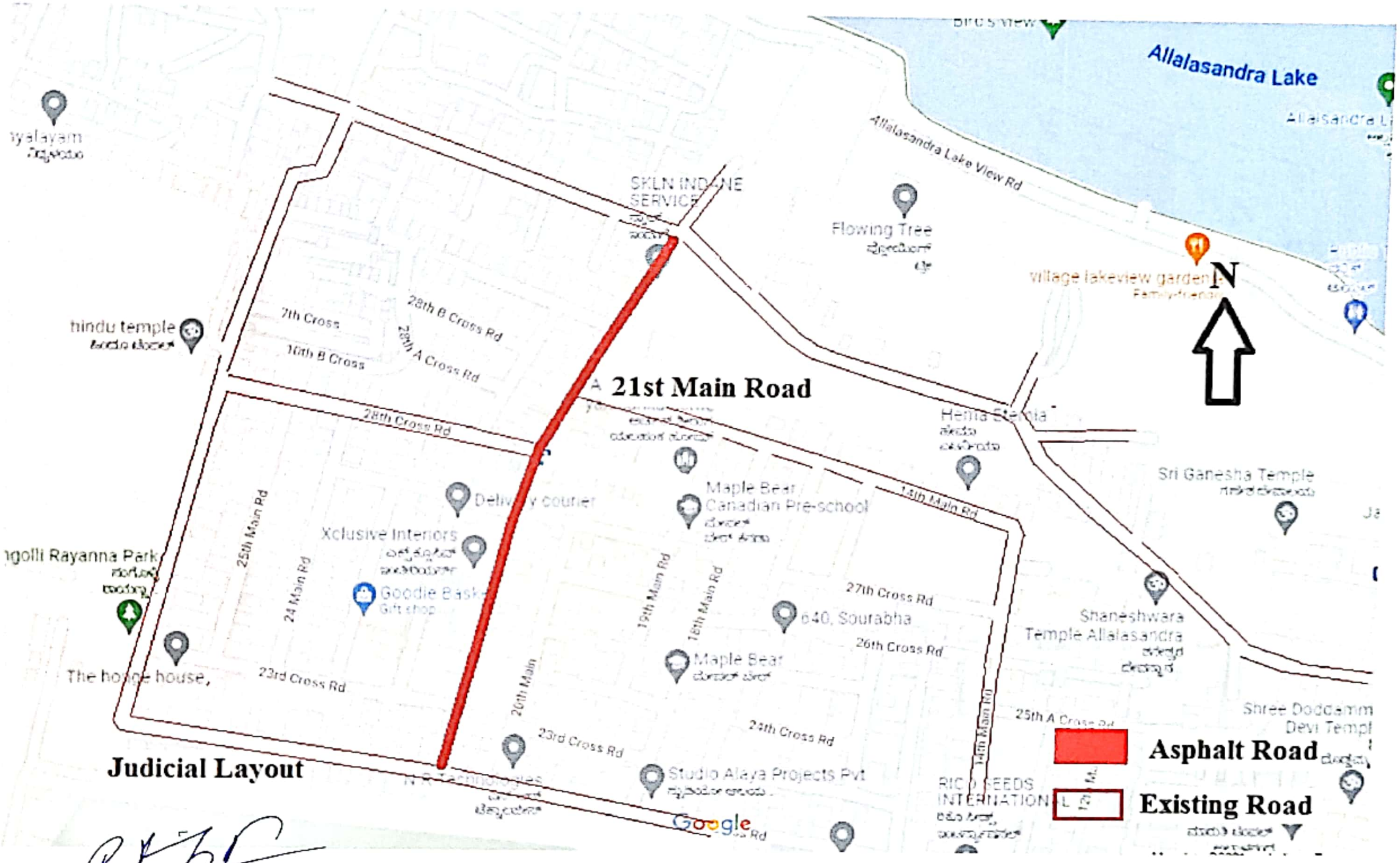
IMPROVEMENTS TO ROADS AND DRAINS AT CHIKKABOMMASANDRA MAIN ROAD AND SURROUNDING AREAS IN YELAHANKA UPANAGARA WARD NO-04



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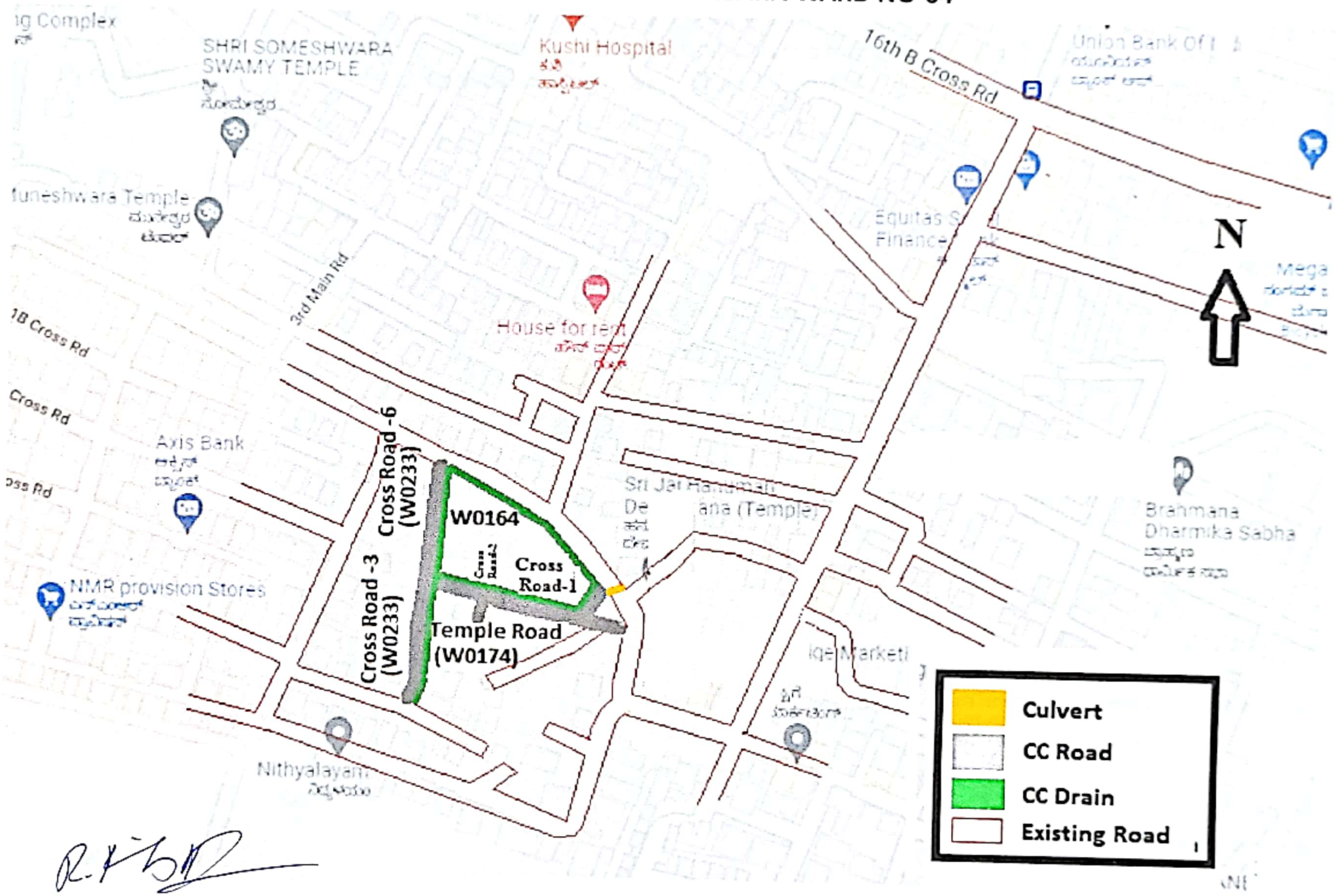
IMPROVEMENTS TO ROADS AND DRAINS AT CHIKKABOMMASANDRA MAIN ROAD AND SURROUNDING AREAS IN YELAHANKA UPANAGARA WARD NO-04



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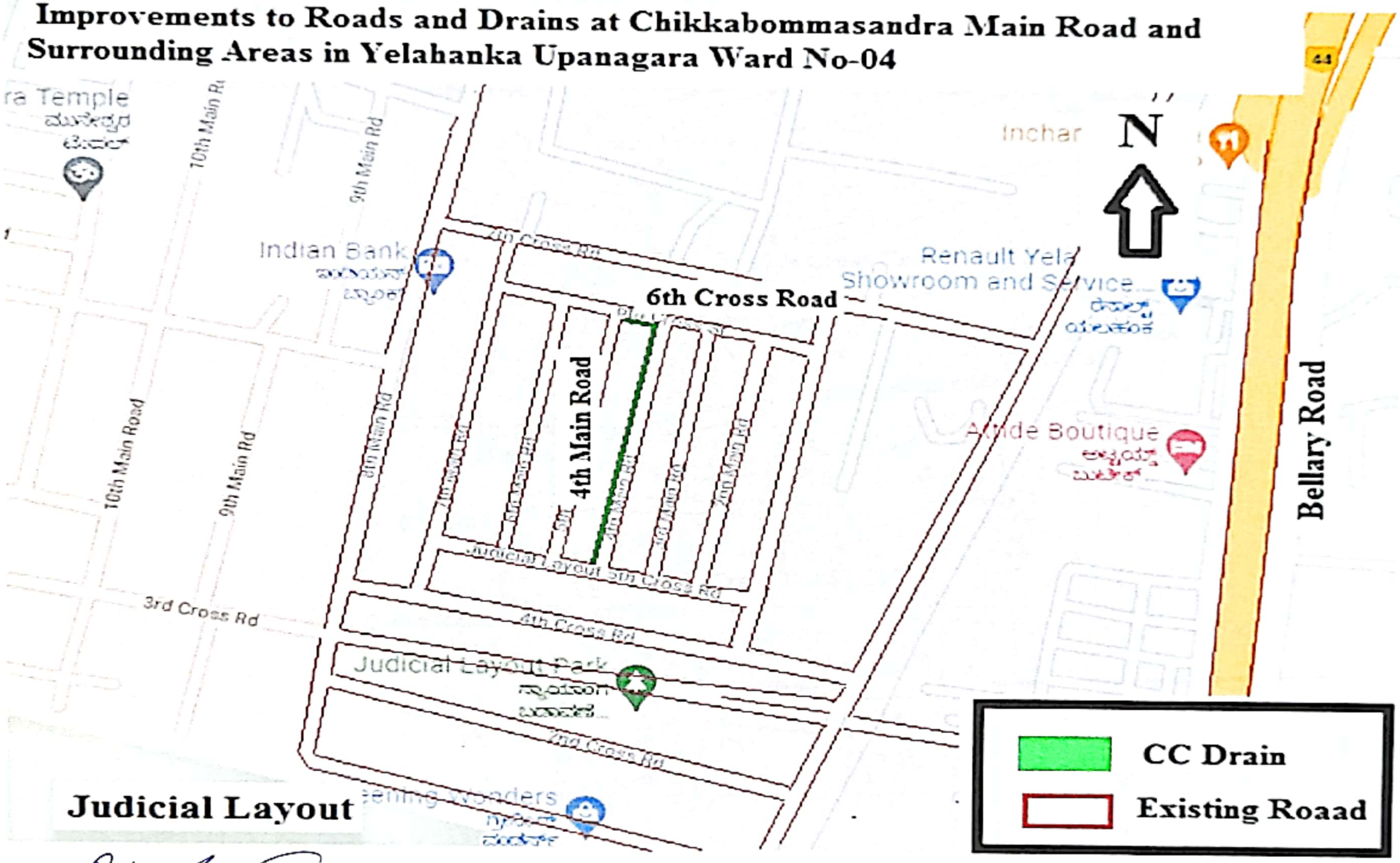
IMPROVEMENTS TO ROADS AND DRAINS AT CHIKKABOMMASANDRA MAIN ROAD AND SURROUNDING AREAS IN YELAHANKA UPANAGARA WARD NO-04

Improvements to Roads and Drains at Chikkabommasandra Main Road and Surrounding Areas in Yelahanka Upanagara Ward No-04



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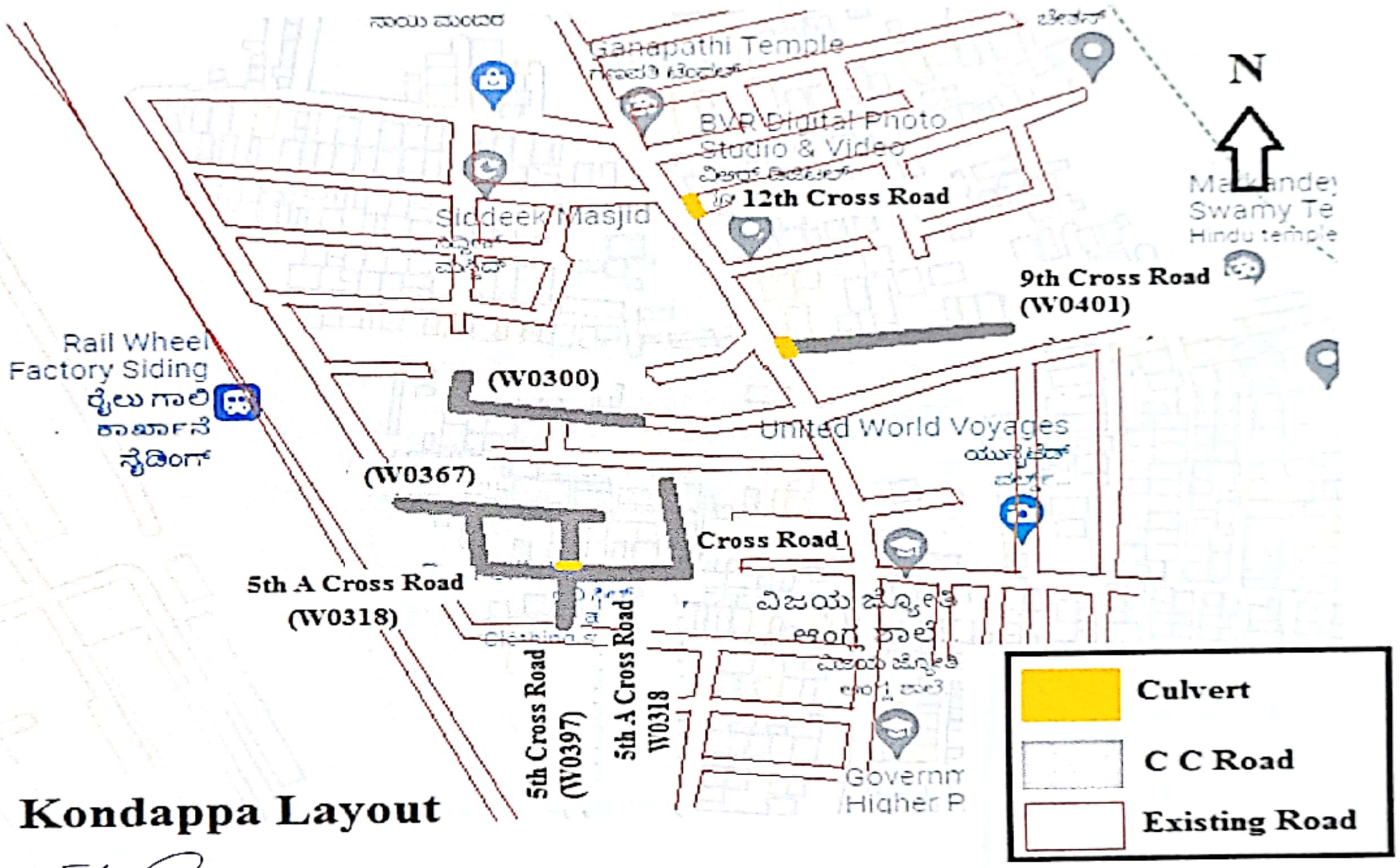
IMPROVEMENTS TO ROADS AND DRAINS AT 1st, 5th AND 5th A CROSS AT WESTERN SIDE OF KAMAKSHAMMA LAYOUT AND 9th, 11th, 13th, 13th A AND 28th CROSS ROADS AT WESTERN SIDE OF KONDAPPA LAYOUT IN CHOWDESHWARI WARD NO-02



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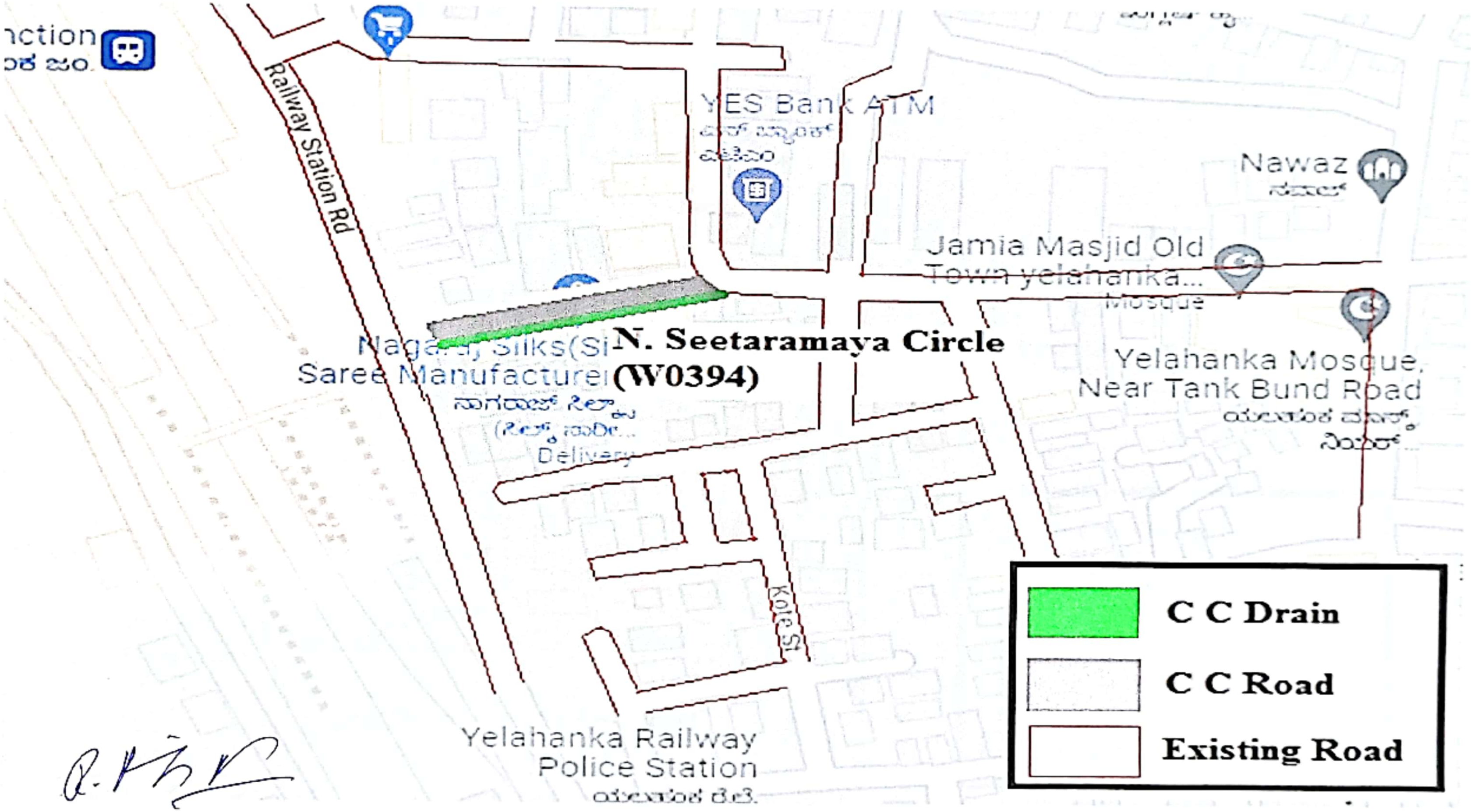
IMPROVEMENTS TO ROADS AND DRAINS AT 1st, 5th AND 5th A CROSS AT WESTERN SIDE OF KAMAKSHAMMA LAYOUT AND 9th, 11th, 13th, 13th A AND 28th CROSS ROADS AT WESTERN SIDE OF KONDAPPA LAYOUT IN CHOWDESHWARI WARD NO-02



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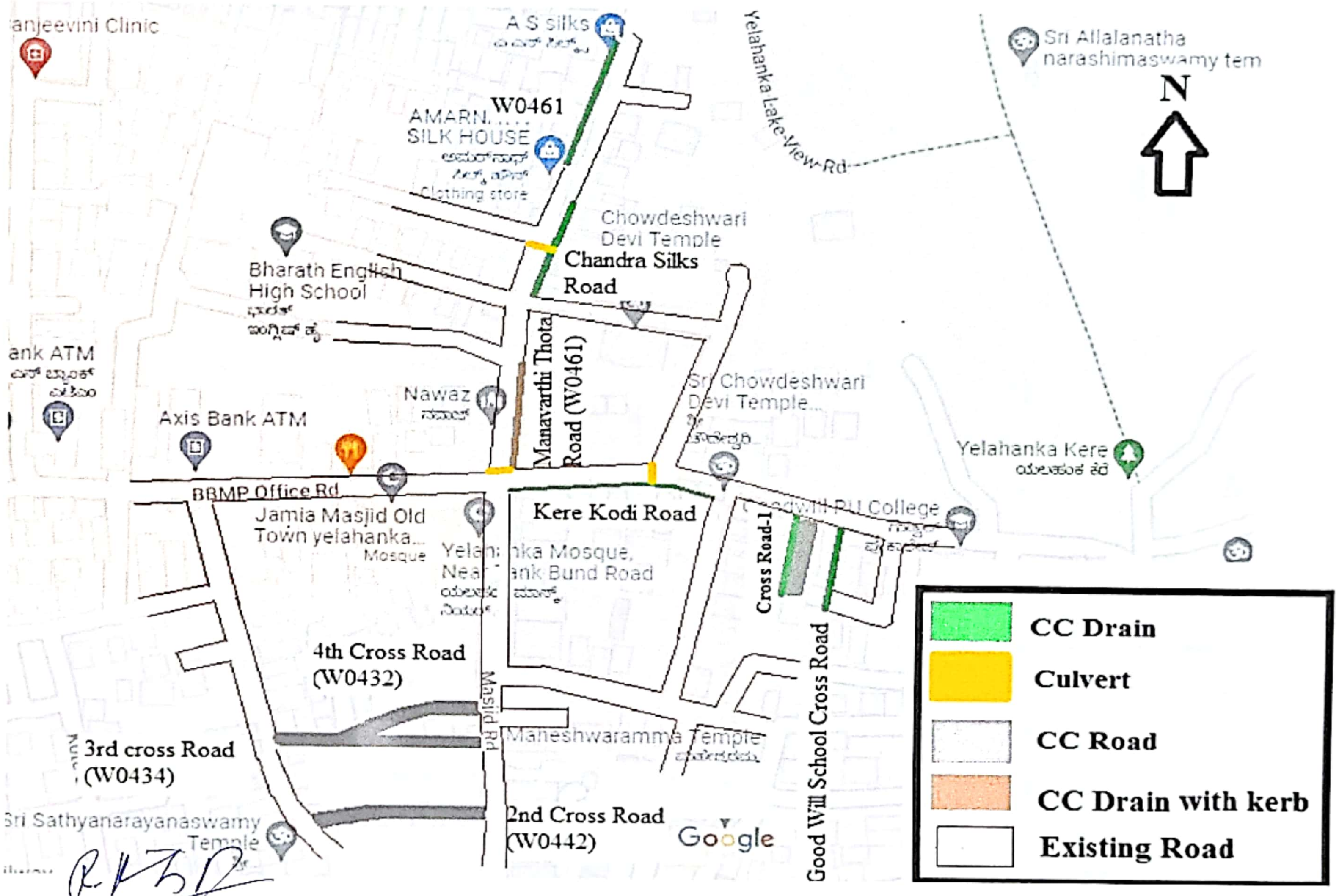
Improvements of Roads and Drains at 2nd, 3rd & 4th Cross at Besthara Bheedhi, Puskarni Road and Manavarthi Thota in Chowdeshwari Ward No-02



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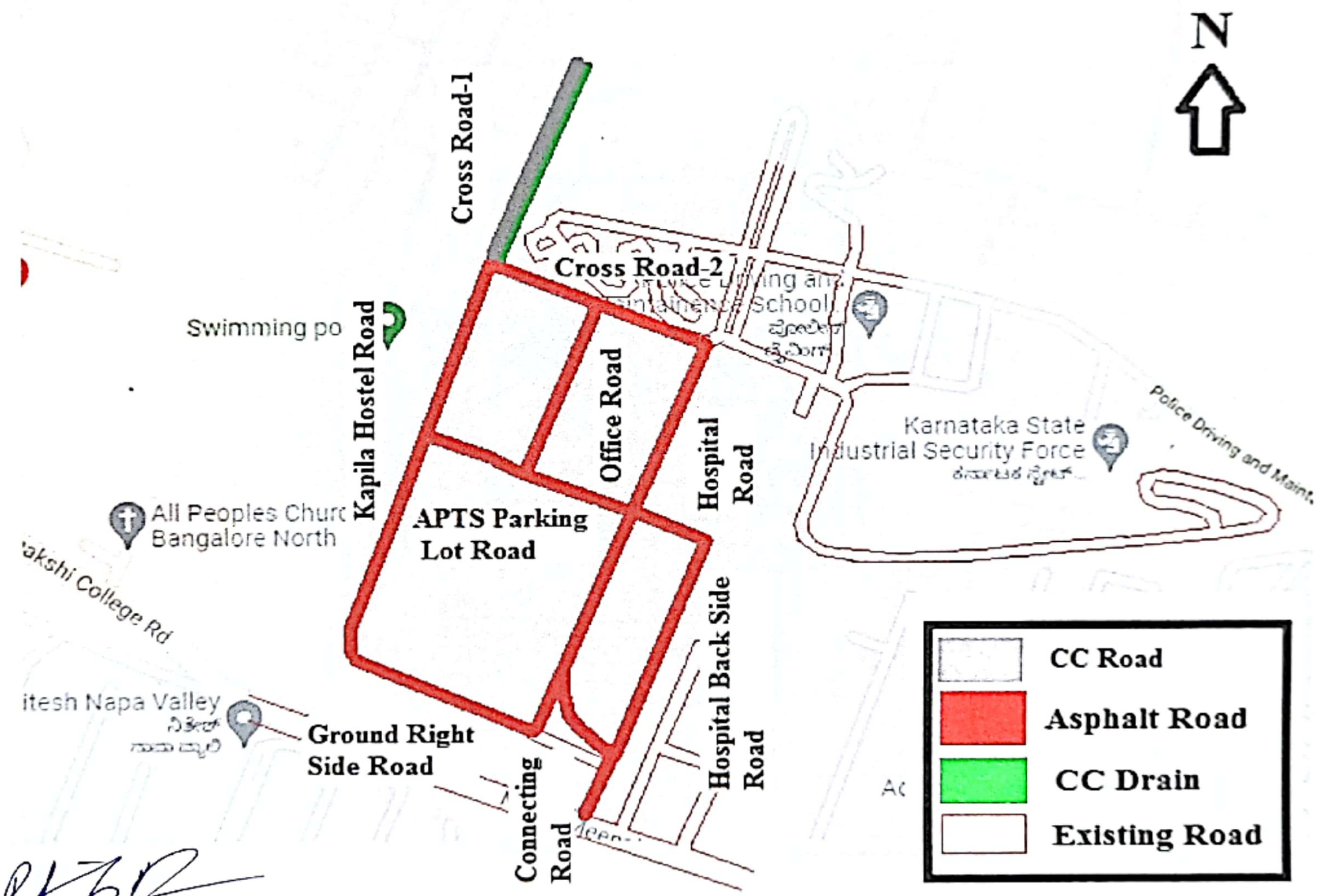
IMPROVEMENTS TO ROADS AND DRAINS AT APTS PREMISES IN KEMPEGOWDA WARD NO-01



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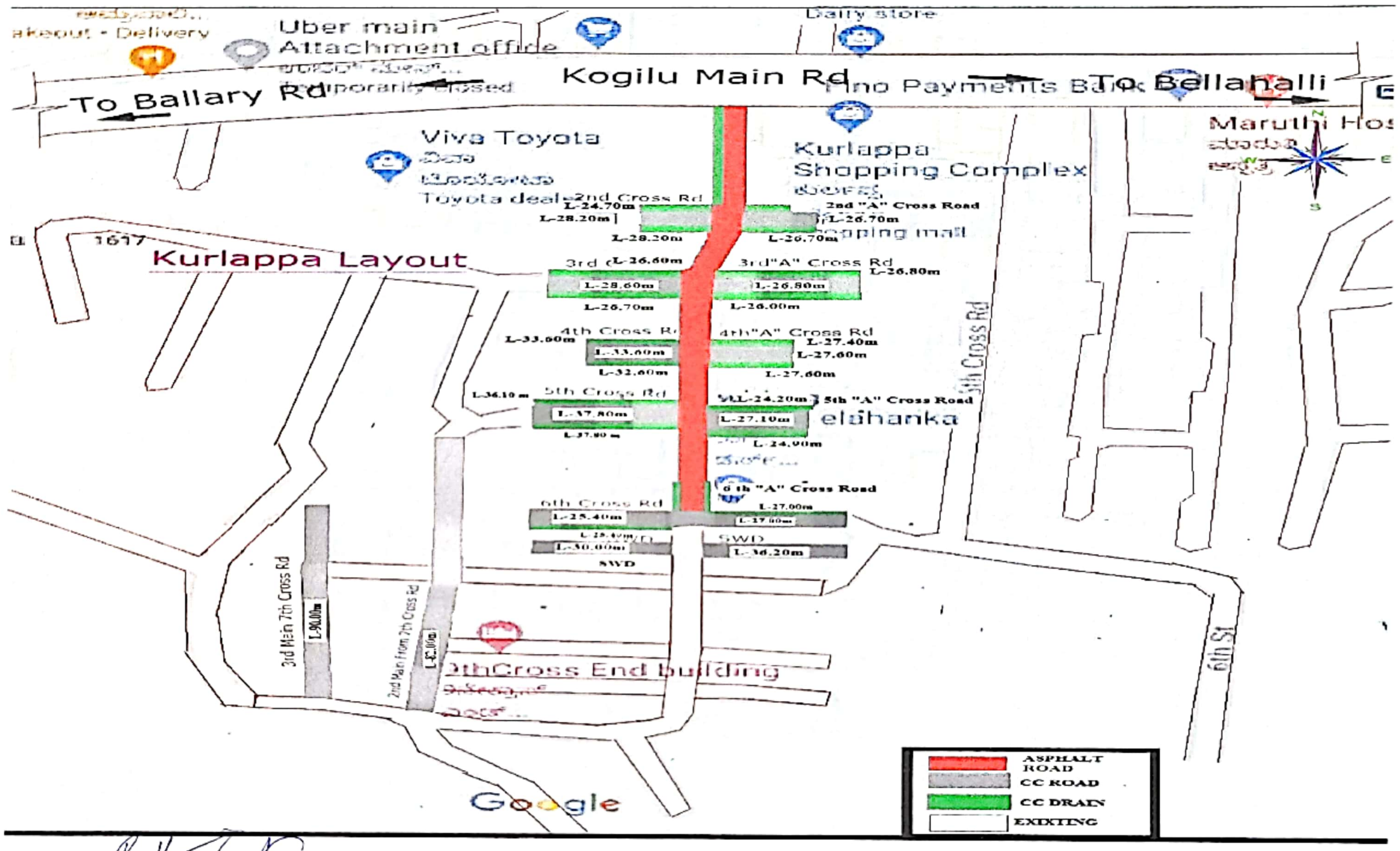
Improvements of Balance Main and Cross Roads of Kurlappa Layout in Kempegowda Ward No-01.



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DRAWINGS

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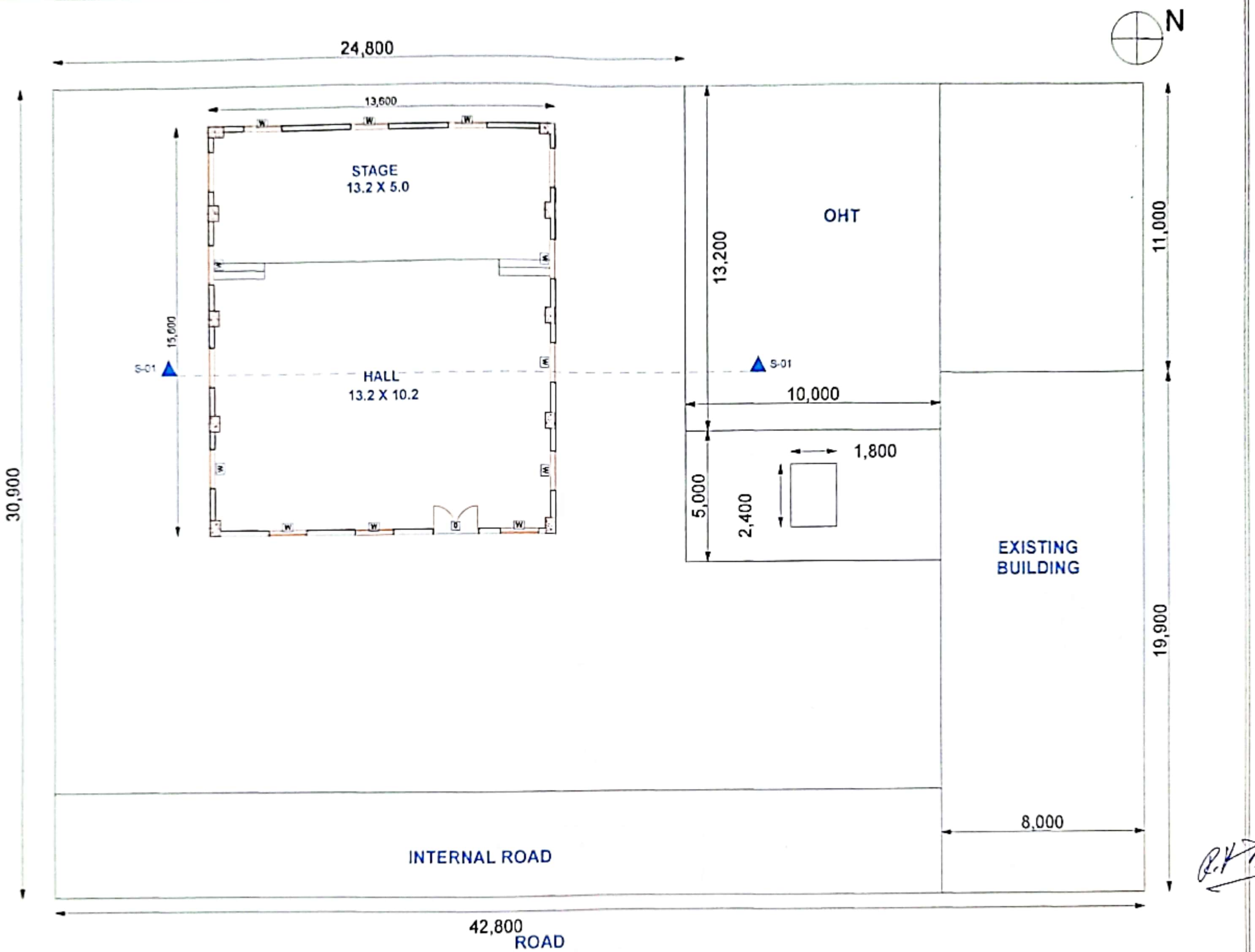

Ground Floor Plan

NOTES :-
1) Do Not Scale The Drawings
2) All Dimensions Are In Millimeters

Built up area - 212.16 Sqm

PROJECT	IMPROVEMENTS OF ROADS, DEVELOPMENTS OF PARKS AND CONSTRUCTION OF BUILDINGS IN WARD No 01,02,03 AND 04 OF YELAHANKA DIVISION UNDER 2021-22 DISTRICT MINISTER GRANTS (PACKAGE NO-15) CONSTRUCTION OF DYANA MANDHIRA AT GKVK LAYOUT IN YELAHANKA UPANAGARA WARD N0 04	DESIGN	R.KARTHIK RECHAN		
		CHECKED	R.RUDRAPRASAD		
CLIENT	BBMP	DATE	15-11-21	DRAWN	Manjunath H V
TITLE	Ground floor plan	DWG NO.	YNKARDM-01	SCALE: NTS	REV: R0

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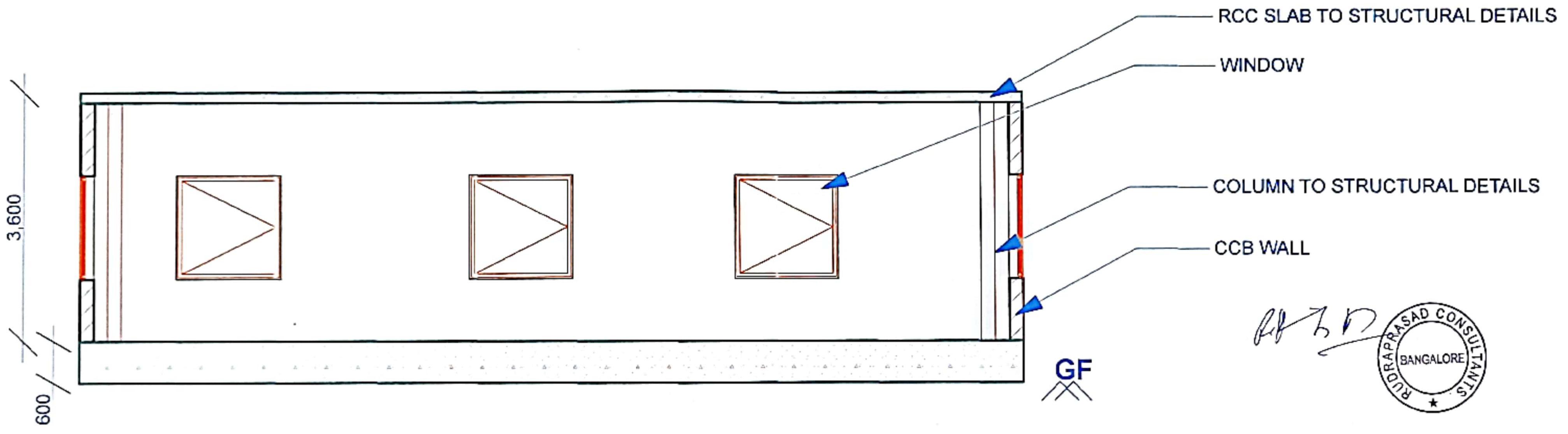

SECTION 01-01

Built up area - 212.16 Sqm

1) Do Not Scale The Drawings
2) All Dimensions Are In Millimeters

PROJECT	IMPROVEMENTS OF ROADS, DEVELOPMENTS OF PARKS AND CONSTRUCTION OF BUILDINGS IN WARD No 01,02,03 AND 04 OF YELAHANKA DIVISION UNDER 2021-22 DISTRICT MINISTER GRANTS (PACKAGE NO-15) CONSTRUCTION OF DYANA MANDHIRA AT GKVK LAYOUT IN YELAHANKA UPANAGARA WARD N0 04	DESIGN	R.KARTHIK RECHAN		RUDRAPRASAD CONSULTANTS STRUCTURAL ENGINEERS, ARCHITECTS & PROJECT MANAGEMENT CONSULTANTS No. 3 7th MAIN, MALLESWARAM BANGALORE-560003 Ph : 23444801 Mob : 91-9448227083, 91-9572924526 E-mail : rudraprasad33@rediffmail.com Web: www.orkengineers.com
		CHECKED	R.RUDRAPRASAD		
CLIENT	BBMP	DATE	15-12-2021	DRAWN Manjunath H V	
TITLE	SECTION 01-01	DWG NO.	YNKARDM-01	SCALE: NTS REV: R0	

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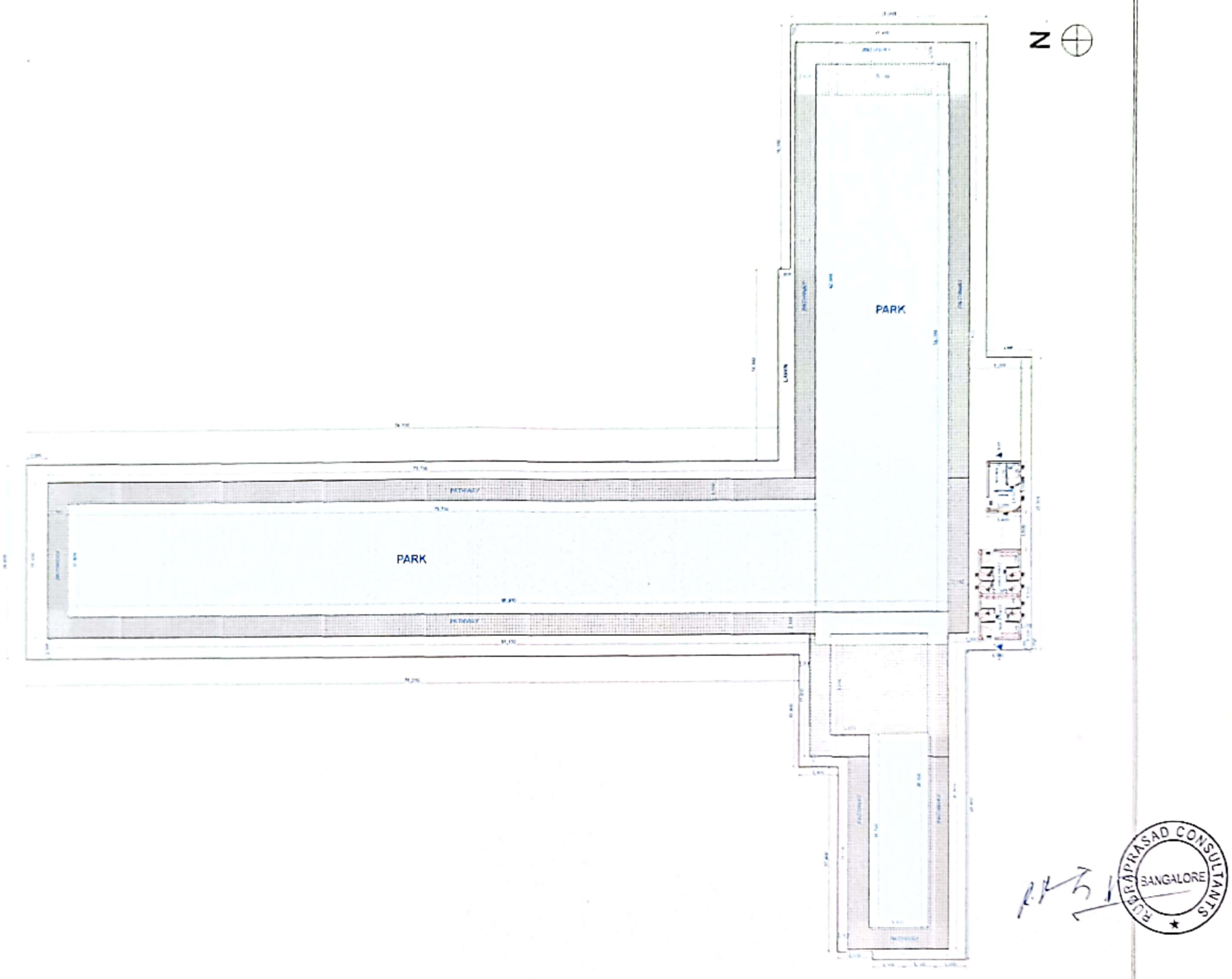

SEVALA MAHARAJA PARK

Built up area - 53.56 Sqm

1) Do Not Scale The Drawings
2) All Dimensions Are In Millimeters

PROJECT	IMPROVEMENTS OF ROADS, DEVELOPMENTS OF PARKS AND CONSTRUCTION OF BUILDINGS IN WARD No 01,02,03 AND 04 OF YELAHANKA DIVISION UNDER 2021-22 DISTRICT MINISTER GRANTS (PACKAGE NO-15) PROVIDING FENCING AND OTHER DEVELOPMENTAL WORKS TO MASTI VENKATESHWARA IYANGAR PARK IN ATTUR WARD NO 03	DESIGN	R.KARTHIK RECHAN		
		CHECKED	R.RUDRAPRASAD		
CLIENT	BBMP	DATE	16-12-2021	DRAWN	Manjunath H.V
TITLE	PLAN	DWG NO.	YNKARIY-01	SCALE: NTS	REV: R0

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